



# DIAGNOSTIC MEDICINE

## A COMPENDIUM (WITH EPONYMS)

by

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*To the memory of my mother*

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## PREFACE TO FIRST EDITION

This is a new kind of a book designed to serve the medical student and the post-graduate. It is a handbook of mainly medical eponymic Symptoms and Signs (including radiological signs), Laws, Rules, Phenomena, and Tests; and of Triads, Tetrads and Pentads. The title of the book 'Diagnostic Medicine' however may not be quite an apt one since laboratory tests and methods have not been included.

The alphabetical order has been adopted for the sake of convenience although it is realised that the information would have been more accessible if the arrangement was according to diseases or conditions, or structures pertaining to them such as pyramidal tract responses, or sciatic nerve stretch tests. It cannot be hoped that every known diagnostic sign or clinical test has been included in this book. On the other hand some of the signs mentioned may be of little clinical value. The author will be grateful for further data, and for correction in case of error.

Descriptive or eponymic, the material in this book has been collected from many sources such as textbooks, monographs and journals. The aim of the compilation will be fulfilled if it provides the medical student, by assimilation of a myriad of signs, with a stimulating companion to a textbook on physical or clinical diagnosis, or on radiological eponymic signs.

My thanks are due to Dr. P. N. Shenoy and Dr. A. A. Chikhali-kar for their assistance. It is a pleasure to express my appreciation of the co-operation of the Bombay Chronicle Press.

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## PREFACE TO SECOND EDITION

In its second edition this book has been expanded and a number of eponymic clinical signs added. A new section on 'Pathological Eponyms' has been introduced. It is hoped this unusual compilation will continue to interest the student with a thirst for knowledge.

Aspi F. Golwalla.

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## *Abbreviations*

m. muscle	s. sign
mn. maneuver	syn. syndrome
n. nerve	t. test
p. phenomenon	tet. tetrad
pent. pentad	tr. triad

## I SYMPTOMS

**Alcohol-induced pain.** Some patients with Hodgkin's disease or sarcoidosis experience intense pain at the site of disease after drinking alcohol.

**Anton's symptom.** Patient with bilateral lesions of occipital lobes (cerebro-cortical blindness) is often unaware of his visual difficulty.

**Band sensations.** Feeling described by the patient as if a cold bandage were being pulled tight across the thorax or abdomen or at the knee and ankle joints in dorsal column damage.

**Bends.** In Caisson decompression disease, excruciating pains in ms. and joints.

**Buerger's paresthesia.** Paresthesia of lower extremities accompanied by oedema but without objective symptoms.

**Bonhoeffer's symptom.** Loss of normal m. tonus in chorea.

**Buerger's symptoms.** In TAO the pain in the affected leg is relieved only by lying down with the leg hanging over the side of the bed.

**Burning drops.** A sensation of drops or streams of hot liquid in abdominal cavity felt at times in perforating gastric ulcer.

**Burning feet.** Severe burning, aching hyperesthesia and pain usually confined to soles of feet due to deficiency of various fractions of vitamin B.

**Burning tongue.** Constant intolerable burning sensation at tip of tongue in neurosis.

**Butterflies in stomach.** A vasomotor manifestation in temporal lobe epilepsy.

**Castellani-Low symptoms.** Fine tremor of tongue in sleeping sickness.

**Chokes.** In Caisson-decompression disease in severe cases the lungs may be affected and patient complains of tightness of chest.

**Cold glove (cold stocking).** Acral hypothermia of extremities due to vascular disorder.

**Dead fingers.** Intermittent attacks of pallor or cyanosis on exposure to cold in Raynaud's phenomenon.

**Devil's grippe.** Epidemic hiccough.

**Devil's pinches.** Spontaneous bruising, small in size, that occur without cause in usually overweight females.

**Dietel's crisis.** Attacks of acute pain simulating renal colic accompanied by nausea and vomiting may be initiated by temporary kinking of ureter with resultant retention of urine in renal pelvis.

**Dissociation symptom.** Diminution of pain and temperature sensations with retention of touch and all other sensations.

**Electric feet.** See burning feet.

**Electric shock sensation.** Tingling shock-like sensation often described as electricity running down the limbs on flexion of neck in cervical spondylosis or disseminated sclerosis.

**Flashes of light.** Visual aura in grand mal.

**Flip-flop sensation.** Sensation in the precordium as a result of premature heart beat (*extrasystole*).

**Gelling.** Moderate joint stiffness aggravated by rest in osteoarthritis.

**Growing pains.** Pains felt in joints, particularly hips, knees and ankles, not associated with swelling in rheumatic fever.

**Haloed around lights.** Coloured haloes around lights, a premonitory symptom of acute glaucoma.

**Hands going to sleep.** Paraesthesiae of fingers at rest for which there is apparently no organic basis.

**Hepatic angina.** Pain experienced in right hypochondrium, commonly aggravated on exertion, in congestive heart failure.

**Horton's headache.** Histamine cephalgia.

**Hot flushes and flashes.** Vasomotor changes which take the form of periodic feelings of warmth in face, neck and upper chest associated with flushing and often with severe sweating during menopause.

**Icecream headaches.** Headaches referred from the oral cavity since the pain is similar to that which occurs when very cold icecream contacts the upper palate.

**Jitter legs (Restless legs).** Nocturnal jerking and inability to find comfortable position for limbs in bed.

**Maggan's symptoms.** Sensation of small worms creeping about under the skin in cocaine addicts.

**Meenteric pull.** Pulling sensation felt by the patient when lying on left side.

**Mourning fatigue.** Weakness or fatigue associated with grief.

**Night starts.** In tuberculous joint disease when the articular cartilages are destroyed, the child often cries out during sleep.

**Oehler's symptom.** Coldness and pallor of feet in intermittent claudication.

**Pel's crises.** Ocular crises, particularly paroxysm of ciliary neuralgia and corneal hyperesthesia associated with *tabes dorsalis*.

**Pericarditis hydrophobia.** Intensification of pain on eating or drinking in pericarditis.

**Phantom pain.** Sensation of pain in amputated limb.

**Pressure symptom.** Nervous symptom due to pressure on brain or spinal cord.

**Privet cough.** Severe cough due to anaphylactic oedema of lungs and associated with eosinophilia caused by pollen during spring.

**Putnam's acroparesthesia.** (waking numbness). Acroparesthesia occurring during night or early morning, characterised by periods of numbness and anesthesia of one or both hands and also of arms and legs.

**Rainbow vision.** A defect in colour vision in which objects, especially lights, may be seen surrounded by a ring containing the colours of the spectrum in conjunctivitis.

**Redlich's symptom.** Dilatation of pupil may occur as associated reaction when strong efforts are made toward voluntary movement of eyes in any direction; occasionally observed in schizophrenia.

**Remark's symptom.** Polyesthesia and prolongation of lapse of time before a painful impression is perceived in tabes.

**Schultze's acroparesthesia.** Acroparesthesia of middle aged women resembling tetany and characterised by paresthesia, anesthesia or pain in upper extremity but without vasomotor symptoms.

**Seguin's signal symptom.** Involuntary contraction of ms. just before an epileptic attack.

**Shakes.** Tremors of lips, face, tongue and limbs usually herald the onset of withdrawal symptoms in chronic alcoholism.

**Shin splints.** Severe pain in tibialis anterior muscle following unaccustomed activity.

**Sleep starts.** Physiological myoclonus experienced at times during light sleep.

**Spitting up.** Vomiting in infants with chalasia.

**St. Anthony's fire.** The first symptom in ergotism is burning pain in the extremities.

**Symptom of Du Bois.** In mongolism the thumb is frequently shorter than normal, and the fifth finger is curiously incurved and shortened so that its tip may not quite reach the middle phalangeal joint of the ring finger.

**Telephone ear.** Tinnitus sometimes associated with pain and deafness due to constant telephoning.

**Telescopic vision.** Loss of peripheral vision in whole of both fields e.g. in migraine.

**Trigeminal ghosts.** Unpleasant dysesthesia on the affected side following trigeminal rhizotomy.

**Uhthoff's symptom.** In multiple sclerosis a permanent scotoma may remain and the size of the scotoma may increase and reading acuity correspondingly diminish in some cases on exercise, or exposure to heat or vasodilator drugs.

**Water-brash.** Following a hot burning sensation in epigastrium, a profuse salivation takes place which runs into the mouth; may occur with peptic ulcer.

**Wenckebach's second wind angina.** Ability to walk the anginal pain off particularly if it is an enjoyable sport such as playing golf.

**Wernicke's cramp.** A form of psychogenic m. cramp precipitated by anxiety or fear.

**Withdrawal symptoms.** (Abstinence symptoms). Symptoms of confusion and tremor (delirium tremens) in chronic alcoholics at times of stress such as infection or injury, or when forced abstinence occurs.

## II SIGNS

### 1. CLINICAL SIGNS

**Aaron's s.** Sensation of pain or distress in epigastric or precordial region on pressure over McBurney's point in appendicitis.

**Abadie's s.** 1. Absence of deep pressure pain in tendo Achillis in tabes. 2. Involuntary twitchings or spasm of levator palpebrae superioris in Grave's disease.

**Abdominal apron.** Overhanging fatty apron in extreme obesity.

**Abe Lincon physique.** Tall and thin habitus with long slender limbs as in Marfan's syndrome.

**Abraham's s.** 1. Percussion note between dull and flat over acromion process in early apical tuberculosis. 2. Acute pain in vesical lithiasis on applying pressure between umbilicus and 9th right costal cartilage.

**Accoucher's hand.** Carpal spasm of the hand in tetany giving a diagnostic posture of obstetrician's hand.

**Acrobatic posture.** Abnormal posture due to extreme hypotonia in tabes.

**Adam apple's sign.** Of pharyngeal palsy. Normally it is possible to perform the movement of swallowing 4-7 times in succession as observed by up-and-down movements of Adam's apple. If the middle and inferior constrictors of pharynx are weak, the movements are either diminished in number, or deficient.

**Adenoid facies.** In children with large adenoids the mouth remains open continuously, with a pinched nose conferring somewhat a stupid expression.

**Adenoid voice.** Interference with normal nasal resonance due to nasopharyngeal obstruction from adenoids.

**Adie's pupil.** (Myotonic pupil). Widely dilated pupil with a sluggish delayed reaction to light and slow reaction to accommodation. Usually unilateral and in young women; often associated with absent or sluggish tendon jerks.

**Air cushion feeling.** Gurgling sensation on palpation of right iliac fossa in typhoid fever.

**Alabaster skin.** Peculiar pallor of skin in hypopituitarism.

**Alderman's gait.** See waddling gait.

**Allergic salute.** In allergic rhinitis in childhood, the nose is rubbed usually in an upward or rotatory motion. This relieves itching by freeing the internal congested surfaces of the nasal mucosa from contact with one another.

**Allen's s.** Of pyramidal lesion. Sharp upward flick of second toe by pressure applied to ball of the toe.

**Alligator boy.** See collodion baby.

**Alligator skin (Fish skin).** Body skin covered with thick and pigmented large scales in ichthyosis.

**Alligator tongue.** Dry, thick and furred tongue sometimes seen in diabetes.

**Almond eyes.** Slight upward and outward slant of eyes in Mongolism.

**Amaurotic cat's eye.** An anomalous whitish pupillary reflex in affected eye in retinoblastoma.

**Amoss s. (Tripod s.).** In poliomyelitis the patient extends the arms behind the back with hands on the bed for support when sitting up.

**Andral's s. (decubitus).** Preference for lying on the same side in early stages of pleurisy.

**Anal wink.** Contraction of the sphincter ani externus.

**Anaesthesia dolorosa.** In syringomyelia, paradoxically pain may be most intense in an analgesic limb.

**"Andy Crump" appearance.** Striking face with small mandible symmetrically receded and flattened base of the nose in Pierre-Robin syndrome.

**Angell's s.** Of torsion of testis. If patient is examined standing, the opposite testis will be observed to lie horizontally instead of the normal vertical position. This helps to differentiate torsion from epididymo-orchitis.

**Anghelescu's s.** Inability to bend the spine while lying on the back so as to rest on the head and heels alone in tuberculosis of spine.

**Angry look.** Marked thickening and furrowing of skin of face, forehead and scalp in pachydermoperiosteosis.

**Ankle flare.** Venular dilatation most apparent over a triangle centred at the medial malleolus in perforator incompetence.

**Anterior tibial s.** Involuntary extension of tibialis anticus m. on forcible flexion of the thigh on the abdomen in spastic paraplegia.

**Aortic nod.** See Musset's s.

**Ape hand (Simian hand).** Atrophy of intrinsic ms. of hand with ability to place the thumb behind the knuckle of the index finger in lower cervical n. root involvement.

**Ape-like posture.** Trunk bent forward with arms hanging loosely in Paget's disease.

**Ape man.** In acromegaly a marked kyphoscoliosis develops and the enlarged hands hang low besides the knees. This combined with beetling brow, prognathism and overgrowth of hair on chest gives appearance of ape man.

**Apneustic breathing.** A prolonged respiratory cramp—a pause at full inspiration or a more common abnormality of brief end-respiratory pauses lasting 2 or 3 seconds, often alternating with expiratory

pauses as well or with other irregularities of respiratory rhythm. Suggestive of damage to respiratory control mechanism located at mid-or caudal-pontine level, approximately at and below the segment where trigeminal root emerges.

**Argyll Robertson pupil.** Pupil not reacting to light but reacting to accommodation. The pupils are small, irregular and unequal and there is atrophy of iris. Seen in tabes dorsalis.

*Pseudo-Argyll Robertson pupil.* See Adie's pupil.

*Reversed Argyll Robertson pupil.* Loss of accommodation reflex with preservation of light reflex seen occasionally in diphtheria, encephalitis lethargica, meningitis, syphilis, diabetes.

**Arm s. (of Raimiste).** See Raimiste's arm s.

**Arnoux's s.** Sign of twin pregnancy due to foetal heart rhythm produced by action of two hearts and resembling the sound of the hoofs of a pair of trotting horses.

**Ataxic breathing.** Irregular pattern of breathing in which both deep and shallow breaths occur randomly suggestive of medial lesion in reticular formation of dorsal part of medulla.

**Athlete's heart.** Cardiac dilatation and hypertrophy formerly attributed to athletic activity.

**Auenbrugger's s.** Bulging of epigastrium in massive pericardial effusion.

**Aufrech's s.** Feeble breath sound heard just above jugular fossa in tracheal stenosis.

**Austin Flint murmur.** Mitral diastolic murmur heard with severe AI and resulting probably from vibrations of anterior mitral leaflet as it oscillates between the antegrade stream of blood from left atrium and retrograde stream from aorta.

*Right sided Austin Flint murmur.* In PDA with severe pulmonary hypertension, presystolic accentuation of the diastolic murmur at the 4th left space may be heard.

**Automatic micturition (bladder).** A part of bladder contents discharges at certain fairly fixed intervals in paraplegia due to spinal cord lesions.

**Avelli's s.** Unilateral paralysis of motor portion of vagus n. produces ipsilateral paralysis of palatal, pharyngeal and laryngeal ms.

**Babinski's plantar s.** Dorsiflexion of great toe with plantar flexion and fanning of the other toes on stroking the sole of the foot from the heel toward the ball, in pyramidal lesion.

*Equivocal Babinski's s.* Minor degree of corticospinal tract damage leads to an incomplete response such as dorsiflexion of big toe without fanning of smaller toes, or fanning without dorsiflexion of big toe, or failure of big toe to move up or down.

*Pseudo-Babinski's s.* False response in absence of pyramidal tract disease, e.g. voluntary withdrawal in plantar hyperaesthesia, or too

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strong a stimulus, in chorea due to hyperkinesia, or apparent dorsi-flexion if short flexors of toes are paralysed.

**Babinski's platysma s.** Elicited by asking patient to open his mouth as widely and forcibly as possible against resistance. Normally this is accompanied by contraction of platysma. This is absent on the paralysed side in organic hemiplegia.

**Babinski's pronation s.** If the palmar surface of the hands are held in approximation with the thumbs upward and then are shaken the paretic hand falls into a position of pronation.

**Babinski's reinforcement s.** With patient sitting with legs hanging free from examination table, forced pulling of flexed fingers of one side against those of the other is followed by extension of the leg on the paretic side.

**Babinski's trunk thigh s.** On attempting to sit from recumbent position with the arms held across the front of the chest, there is involuntary elevation of the paretic limb.

**Baer's nystagmus.** High frequency nystagmus seen in superficial lesions of cornea.

**Baer's sacro-iliac point of tenderness.** Point situated 2 inches from the umbilicus on a line between umbilicus and anterior superior iliac spine.

**Bag of worms feel of scrotum.** Feel of dilated veins around spermatic cord in varicocele.

**Bag of worms tongue.** Undulating jerky movements of the protruded tongue in rheumatic chorea.

**Bagpipe s.** With partial bronchial obstruction, the positive pressure in the lung persists for an appreciable interval after the expiratory effort is stopped; the outflow of air continues and can be heard on auscultation.

**Baillarger's s.** Inequality of pupils in G.P.I.

**Baker's cyst.** Synovial cyst in popliteal fossa.

**Balaclava helmet s.** In syringomyelia, since the decussating pain fibres from the descending tract of the trigeminal nerve are affected, the sensory loss spreads from C3-C2 and then forwards on to the face like a Balaclava helmet.

**Bald tongue.** Smooth tongue due to atrophy of papillae in anemia or B complex deficiency.

**Balduzzi's s.** Stroking inner border of foot is followed by contralateral or bilateral adduction, inversion and slight plantar flexion of foot, a pyramidal tract response.

**Ballance's s.** Resonance of right flank when patient lies on his left in splenic rupture.

**Ballet's s.** Ophthalmoplegia externa in exophthalmic goitre.

**Bamboo hair.** Fragility and nodous swellings of hair shaft resembling joints of bamboo in erythroderma ichthyosiforme congenitum syndrome.

**Bandy legs.** Outward bowing of legs in rickets.

**Barber chair s.** See Lhermitte's s.

**Barker's node.** Palpable, soft, tender gland along posterior border of sternomastoid low on the right side of neck in infectious hepatitis before icterus becomes obvious.

**Barlow's s.** Demonstration of instability of the hip at birth by eliciting a click from the hip.

**Baron's s.** Sensitiveness to pressure over right psoas m. in chronic appendicitis.

**Barre's leg s.** Of organic hemiplegia. With patient lying on his face, both knees are flexed to a right angle by the examiner, and the patient told to hold them in position. The legs are then let go. In organic hemiplegia the leg on the paralysed side falls notwithstanding the fact that the posterior thigh ms. on the paralysed side are seen to contract more vigorously than in the healthy limb, a condition which cannot be simulated by a hysterical patient.

**Barrel chest.** Cylindrical or barrel-like shape of chest in emphysema due to increased antero-posterior diameter.

**Bassler's s.** Sharp pain caused by pinching the appendix between thumb and iliacus m. in chronic appendicitis.

**Bat ear.** Ear standing from the head at right angles, a congenital anomaly.

**Bathing drawers rash.** Rash in smallpox is confined to the 'bathing drawers area'.

**Battle scarred abdomen.** Number of scars over abdomen due to previous laparotomies.

**Battle's s.** Ecchymoses over mastoid area from fracture through temporal bone.

**Batten's frog child.** Tendency for sitting infant to fall forward in amyotonia congenita.

**Bayonet deformity of chest.** Sharp angular deformities of costochondral junctions in scorbutic rosary.

**Bayonet finger.** In athetosis the joints may remain fixed for several seconds and may in course of time lead to subluxation of digits.

**Beat knee.** See housemaid's knee.

**Beau's lines.** Transverse ridges in the nail related to nutritional disturbance in the nail bed; severe systemic infection or poisoning may be causal factors.

**Bechar's aphthae.** Two reddish or yellowish grey lesions on hard palate on either side of midline in young infants usually due to trauma from the nipple.

**Bechterew's s.** 1. Anesthesia of popliteal space in tabes. 2. *Arm s.* The arms are flexed at the elbows and then suddenly released. Normal individual will not drop the arm immediately, but for a moment the arm will hang in midair. In pyramidal lesions the arm will hang longer and the dropping will be retarded. In hysterical paralysis the arm will drop precipitously. 3. *Foot s.* Plantar flexion response on percussion of middle of the sole or heel.

**Beevor's s.** Upward movement of umbilicus associated with weakness of lower abdominal ms.

**Behr's s.** Pupil larger on side of hemianopia, or on the side opposite the lesion in optic tract lesion.

**Bell tympany.** See coin test.

**Bell's s.** Upward rotation of eyeball on attempting to close the eyes in lower motor neurone facial palsy.

**Benediction (Preacher's) hand.** Posture of papal benediction of hand due to flexion of ring and little finger phalanges and extension of other digits in long-standing ulnar n. palsy and in syringomyelia.

**Bergara Wartenberg s.** Diminution or absence of palpable vibrations of eyelids as examiner attempts to open the closed eyelids against resistance, seen in early stages of facial palsy.

**Berger's s.** Irregularly shaped or elliptical pupil in early stages of tabes or G.P.I.

**Berry's s.** Difficulty in feeling the displaced carotid in carcinoma of thyroid.

**Bethen's s.** When the examiner standing at the back of the patient places his fingers so that the tips rest on the surfaces of the corresponding ribs high up in the axilla, unilateral impairment of expansion is accurately indicated by the lessened degree of respiratory movement on the side affected.

**Bezold's s.** Tenderness and swelling below apex of mastoid process in acute otitis media.

**Bier spots.** Appearance of white patches against the blue background few hours after arterial occlusion.

**Biermer's s.** Metallic resonance over hydropneumothorax varying with change of position.

**Biernacki's s.** Loss of normal sensitiveness on pressure over ulnar n. at the elbow in tabes.

**Bikeles's s.** Pain or resistance to extension of shoulder with the elbow extended due to stretching of irritated n. roots in brachial neuritis or meningitis.

**Bilharzial rosary.** Nodular spermatic cord covered with lentil like bodies in bilharziasis.

**Billiard ball baldness.** Smooth bald patches in alopecia areata.

**Billiard ball testis.** Smooth and wooden consistency of testis in chronic syphilitic orchitis.

- Bing's s.** Elicitation of plantar response by pricking dorsum of foot with a pin.
- Biot's breathing.** Short periods of irregular breathing varying in depth and rate followed by periods of apnoea in meningitis.
- Bird-headed dwarfism.** Progeria with peculiar craino-facial anomalies.
- Bitot spots.** Gray triangular patches in scleral conjunctiva in vitamin A deficiency.
- Black cardiacs.** Deep cyanosis in Ayerza's syndrome.
- Black hairy tongue.** Thick brownish or black furry patches on tongue due to use of antibiotic troches.
- Black hand.** In Raynaud's disease in the stage of local syncope there is blanching of digits, if the hand is immersed in warm water the colour changes to deep violet.
- Blanket tongue.** Thick furred tongue in rheumatic fever.
- Blatin's syndrome.** (Hydatid fremitus). Tactile vibratory thrill or tremulous impulse felt over a large intra-abdominal hydatid cyst.
- Blaxland's s.** See ruler test of ovarian cyst.
- Bleat murmur.** Squeaky, high pitched systolic apical sound in pericarditis when small strands of exudate bridge the pericardial cavity and become tense during systole.
- Blow out.** Visible varix often situated over the site of a constant medial leg perforator.
- Blubber lips.** Hypertrophy of tissues of lips in negroes.
- Blue bloater.** A chronic bronchitic in respiratory failure—increased airway obstruction causes cyanosis and cardiac failure.
- Blue nevus.** Flat, hairless, bluish lesions on face, dorsum of hands and feet and both buttocks in babies.
- Blue sclera.** A change in the sclera which may be various shades of blue in osteogenesis imperfecta.
- Blumer's shelf.** (rectal shelf). Cancer or inflammatory infiltration in Douglas's pouch forming a shelf-like structure.
- Blumer's s.** (Rebound tenderness). On pushing the hand deeply into the abdominal wall in a region remote from that of suspected tenderness (e.g. left iliac fossa in a case of appendicitis), and then abruptly withdrawing it, if pain is experienced in the affected region, it is usually a sign of peritoneal irritation.
- Boas's s.** Area of hyperesthesia over right subscapular region in acute cholecystitis.
- Bohn's s.** Fall in diastolic pressure with exercise in patent ductus.
- Bolster fingers.** Swelling of posterior nail folds due to suppuration beneath them.
- Boomerang leg.** See sabre tibia.

**Boston's s.** Jerking of the lagging lid on elevation of the eyeballs in thyrotoxicosis.

**Bottle nose.** Rhinophyma due to multiple sebaceous adenomata of skin covering distal half of nose.

**Bottle s.** Due to inadequate abduction of the right thumb in median nerve paralysis, the subject is unable to grasp a round object.

**Bottle shaped metacarpals.** Peculiar shape of metacarpals in gargoylism.

**Bouchard's nodes.** Nodes on proximal interphalangeal joints in osteoarthritis.

**Bounding head.** See Musset's sign.

**Boutonniere deformity** (Grass hopper leg deformity). Persistent flexion of proximal interphalangeal joint and compensatory hyperextension of distal interphalangeal joint in late stages of rheumatoid arthritis.

**Bovine cough.** Loss of explosive character of cough which becomes prolonged and wheezing like that of a cow in recurrent laryngeal n. involvement.

**Bow legs.** Outward curving of legs with knees wide apart resulting from rickets, osteomalacia or osteitis deformans.

**Bow s.** In varicocele, if on lightly holding the varicocele between fingers and thumb, the patient is instructed to bow, tension in the varix becomes appreciably diminished.

**Bowler's thumb.** Thickened thumb joint as a result of many years of bowling

**Boxy head.** In rickets the skull appears larger than normal and tends to be oblong or square with prominence and thickening of frontal and parietal eminences.

**Boyer's cyst.** Cyst of subhyoid bursa.

**Bracelets (and anklets) of myxoedema.** Deposition of myxoedematous material around wrists (and ankles) in hypothyroidism.

**Bradborn's s.** In 7th cervical segment lesion, if the patient holds his upper arms in adduction and his forearms in flexion, there is usually flexion at the wrists and fingers.

**Bragard s.** With the patient's knee extended, the leg is raised gradually from the bed (SLR test) till pain is experienced, the foot is then dorsiflexed. The sign is positive if the pain is aggravated and indicates n. involvement.

**Brain's reflex.** On leaning forward or bending over as if to assume quadrupedal position, the flexed hemiparetic arm goes into position of extension.

**Branham's s.** When a localised arterio-venous fistula is large enough, occlusion of the feeding artery by compression slows the pulse rate.

**Brassy cough.** Cough with a metallic quality due to tracheal compression by intrathoracic tumor or aneurysm.

**Swollen arm.** Swelling of arm associated with carcinoma of breast.

**Thickened skin.** Thickened skin in elephantiasis.

**Lead-crumbly tremor.** A type of tremor in Parkinsonism.

**Brick-red face.** Ruddy facial complexion in polycythemia.

**Bridgman's paralysis.** Radial n. paralysis resulting from the head of one lying on the arm of the other.

**Brice's s.** Intercostal tenderness in case of an underlying pulmonary infarct.

**Brissaud's reflex.** Brief contraction of anterior thigh ms. especially tensor fascia femoris when eliciting plantar reflex.

**Brittle hair.** Easy breaking of hair in myxoedema.

**Broadbent's s.** Systolic retraction of some of the lower ribs on lateral or posterior aspect of thorax in constrictive pericarditis.

**Broadbent's inverted s.** Pulsations synchronous with ventricular systole on posterior lateral wall of chest in aneurysm of left auricle.

**Brockenbrough s.** The pulse pressure in the beat following a premature beat is diminished in hypertrophic obstructive subaortic stenosis.

**Brodie's knee.** Chronic synovitis of the knee joint.

**Brosieri's s.** White streaks produced by drawing some sharp object across the skin occupied by eruption in scarlet fever.

**Brudzinski's ss.** In meningeal irritation. 1. *Cheek s.* Pressure against the cheeks on or below the zygoma is accompanied by reflex flexion at the elbow with upward jerking of the arms. 2. *Leg s.* On flexing lower extremity the opposite lower limb flexes automatically. 3. *Neck s.* Flexion of hips and knees on flexing the neck or turning it to one side. 4. *Symphysis s.* Pressure on symphysis pubis is followed by flexion of both lower extremities.

**Brun's s.** With a tumor growing in or into 4th ventricle vertigo may occur with sudden change of posture.

**Buckling s.** The straight leg test is carried out by passively flexing the hip while the knee is extended until the knee begins to flex or buckle. This is an involuntary reaction signifying a release from the sciatic nerve tension which is producing the pain.

**Buffalo hump.** Fat pad over 7th cervical vertebra in Cushing's syndrome.

**Buffalo obesity.** Usually thin arms and legs associated with heavy trunk, dorsal cervical fat and facial obesity in Cushing's syndrome.

**Bulge s.** For detection of minor degrees of knee effusion, the leg is fully extended and relaxed and all the fluid is milked down from the medial portion of the joint by stroking. The lateral aspect of the knee is then stroked, and a bulge will immediately appear medial to the patella.

**Bulkeley's membrane.** Moist red surface observed on removal of scales in psoriasis.

**Bull neck.** Swelling of whole neck from angle of jaw to clavicles due to severe periadenitis in diphtheria.

**Bulldog jaw.** Protruding jaw in acromegaly.

**Bulldog reflex.** Analogous to grasp reflex and sometimes accompanying it, the reflex consists of involuntary biting of an object placed between the teeth.

**Bulldog scalp (and forehead).** Thickened skin bulging out between natural wrinkles in acromegaly and pochydermoperiostosis.

**Bumps.** Erythema nodosum.

**Burton's s.** Blue line at junction of teeth with gums in chronic lead poisoning.

**Butcher's thigh.** A penetrating wound in femoral triangle due to the knife slipping while boning meat.

**Butterfly rash.** Rash over nose and cheeks with butterfly wing distribution in systemic lupus erythematosus.

**Butterfly s.** Absence of hyperpigmentation of a butterfly-shaped area on upper back of patients with chronic pruritus in jaundice because they cannot easily reach this area to scratch.

**Buttock-shaped skull.** See Parrot's nodes.

**Cabot Locke murmur.** Diastolic murmur loudest at 4th left costal cartilage heard rarely in anemia.

**Cadaveric hand.** Progressive wasting of all muscles of the hand finally produces cadaveric hand.

**Cafe au lait complexion.** Discolouration of skin in form of coffee coloured freckles in neurofibromatosis.

**Caked breast.** Redness, heat, tenderness and swelling of breast in acute mastitis.

**Calabar swelling.** (Fugitive swellings). Subcutaneous nodules of sudden onset that develop in any part of the body in the course of Loiasis.

**Camel nose.** See tapir nose.

**Campbell de Morgan spots.** Bright red spots (cherry angioma), flat or slightly elevated on chest and abdomen appearing with aging.

**Cannon sounds.** Occasional explosive heart sound heard in complete heart block.

**Cannon waves.** Very large 'a' waves seen in the neck due to simultaneous atrial and ventricular systole as in complete heart block.

**Cantelli's s. (Doll's eyes phenomenon).** If normally the head is gently rotated the eyes remain fixed or appear to move in the opposite direction and do not follow the head. Absence of doll's eye movements in a comatose patient suggests severe depression of midbrain.

**Caput Medusae.** Group of distended veins radiating from umbilicus in portal obstruction, presenting a snake-like appearance.

**Caput natiforme.** Four eminences separated by depressions corresponding to lines of sutures of the skull. (See hot-cross bun head).

**Caput quadratum.** Prominence of frontal and parietal bones in rickets.

**Cardiac gibbus.** Unilateral protuberance of anterior chest wall in a child with enlarged heart.

**Carotid shudder.** Vibrations at the height of carotid pulse occasionally felt in combined AS and AI.

**Carotid swell.** Excessive carotid (and subclavian) pulsation due to obstruction to aorta in coarctation

**Carp mouth.** Rigidity and fixed facial expression with corners of the mouth drawn downwards due to facial spasm in tetany.

**Carey Coombs murmur.** Short apical diastolic murmur due to mitral valvulitis in acute rheumatic fever.

**Carvalho's s.** Accentuation at height of inspiration of systolic and diastolic murmurs of tricuspid regurgitation and stenosis.

**Casal's collar.** Symmetrical dermatitis like a ring or collar round the neck in pellagra.

**Cassowary neck.** Falling out of hair over forehead and at nape of neck in myxoedema.

**Cat's mew expiration.** Prolonged musical expiration in bronchial asthma.

**Cauliflower ear.** Swollen, thickened auricle due to perichondrial hemorrhage from repeated trauma.

**Cavernous breathing.** Low-pitched hollow bronchial breathing heard over a cavity in the lung.

**Caviar lesions.** Varicose veins under the tongue from aging.

**Cephalic cry.** Shrill, high-pitched penetrating cry in newborn infant with widespread asphyxial cortical damage.

**Cestan's s.** (Levator s.). The patient is asked to look down and then slowly close his eyes, in paralysis of facial n. the upper lid on the paralysed side moves upward slightly.

**Cerebriform tongue.** Non-progressive congenital fissures and papillary overgrowths. (See scrotal tongue).

**Chaddock's s.** 1. Of *plantar reflex*. Stimulation in a circular direction under and around the external malleolus produces extensor response in pyramidal lesion. 2. *Wrist s.* Pressure or scratching in the depression at the ulnar side of tendons of flexor carpi radialis and palmaris longus at junction of forearm and wrist is followed by flexion of wrist and simultaneous extension and separation of digits in case of pyramidal lesion.

**Chadwick's s.** Bluish discolouration of cervix, a sign of early pregnancy

**Chair s.** Pain passing upward from the anus on sitting down in entero-colitis.

**Chalk stone.** Gouty tophi which appear like whitish masses.

**Champagne bottle finger.** Dactylitis causing thickening of phalanx due to disease of bone with infiltration of tissues of the finger.

**Chamelion ocular movements.** Dissociated movements of eyes, generally lateral, affecting one or other eye independently in some advanced cases of tuberculous meningitis.

**Charcot's fever.** Fever with chills in acute cholecystitis.

**Charcot's joint.** Neuropathic arthropathy with grossly disorganised but painless joint in tabes, syringomyelia and diabetes

**Charcot's oedema.** Oedema with bluish appearance of extremities seen in hysterical paralysis.

**Charcot's s.** 1. Ability to raise the eyebrows in peripheral facial palsy. 2. Intermittent limping in arteriosclerosis of legs and feet.

**Charcot's spine.** Spinal deformity in tabes.

**Charlie Chaplin stance.** Rotation of lower limbs in flat foot due to femoral rotation.

**Chauffard's point.** Tenderness under right clavicle in cholecystic disease.

**Cheyne Stoke respiration.** Respiratory arrhythmia where amplitude of respiration progressively deepens until a maximum is reached, and diminishes until there is a period of apnoea. The whole cycle lasts 2 or 3 minutes and is then repeated.

**Cherry red complexion.** See brick red face.

**Chicken breast.** See pigeon breast.

**Chiclero's ulcer (bay sore).** A chronic lesion occurring at the site of sandfly bite in *Leishmania brasiliensis mexicana* infection.

**Chimneysweeps' cancer.** Squamous epithelioma of scrotum among chimney sweeps.

**Child Hercules.** Marked muscular strength in adrenogenital macrosomia precox.

**Chipped nails.** Breaking of nails in myoedema.

**Choreic gait.** Bizarre gait with walking distorted by sudden, jerky, brief, irregular, pleomorphic, quasi-purposive involuntary movements.

**Chvostek's s.** In tetany tapping the trunk of facial n. anterior to external auditory meatus produces a drawing of the mouth towards that side.

**Cigarret paper scars.** Papyraceous scars over the shins in Ehlers-Danlos syndrome.

**Clado's point.** Point of tenderness at intersection of right and left interspinous processes and lateral border of right rectus in appendicitis.

**Clark's s.** 1. Infants with hypotonic musculature in complex diplegia when lifted upright may flex the thighs. 2. Obliteration of hepatic dullness due to tympanitic distension of abdomen.

**Claude's s. of reflex hyperkinesia.** Reflex movements of either extension or retraction may appear following a painful stimulus to an extremity, even though the part may seem totally paralysed.

**Claw foot.** Syndactyly associated with deep central cleft dividing the feet into two parts.

**Claw hand.** Hyperextension of metacarpo-phalangeal joints and flexion of interphalangeal joints seen in median n. lesions, brachial plexus injuries and syringomyelia.

**Cleckley's s.** See Allen's s.

**Clergyman's knee.** Infrapatellar bursitis from constant kneeling.

**Clover leaf skull.** Bizarre, trilobed skull with dilated periorbital and scalp veins, due to premature fusion of multiple skull sutures.

**Clubbed fingers.** See Hippocratic fingers.

**Pseudo-clubbing.** 1. Hypertrophy of inner surface of distal ends of fingers in acromegaly. 2. In hyperparathyroidism excessive bone resorption results in a virtual disappearance of the terminal phalanx with telescoping of soft tissues resulting in drum-stick appearance.

**Cluster breathing.** Clusters of breaths which follow each other in disorderly sequence, with irregular pauses between. Seen in high medullary or low pontine lesions.

**Chukels.** Normal bowel sounds.

**Ciutton's joints.** Chronic symmetrical synovitis with effusion in knee joints in congenital syphilis.

**Coast of California contour.** Cutaneous pigmentation with relatively regular outline in neurofibromatosis.

**Coast of Maine contour.** Pigmented spots which show a ragged margin in polyostotic fibrous dysplasia.

**Cobbler's chest.** See funnel chest.

**Cobblestone tongue.** Syphilitic glossitis with irregular furrows and induration of tongue.

**Cock-walk gait of von Jaksch.** Feet held in talipes equinus or equinovarus positions, and patient walking on metatarsophalangeal areas of his feet, in chronic manganese poisoning.

**Cock's comb appearance.** Of labia minora in elephantiasis.

**Cogwheel breathing.** Interrupted or jerky inspiratory element of respiratory murmur, in nervous individuals or apical pulmonary tuberculosis.

**Cogwheel movements.** Jerky irregular conjugate following movements of the eyes seen principally in postencephalitic Parkinsonism.

**Cogwheel rigidity.** (phenomenon). Intermittent resistance to passive movement in extrapyramidal lesion.

**Coin sound (test).** A coin is placed on the chest and is percussed with another coin. On auscultation the normal lung yields a dull note, but over a large airspace such as pneumothorax a clear bell-like sound is heard.

**Cold sore.** Common fever blister which occurs most often on the lips.

**Cole Cecil murmur.** Murmur of AI occasionally heard only in axilla or at apex.

**Collapsing pulse.** See water hammer pulse.

**Collier's s.** Retraction of upper lid may be seen with neurological lesions near posterior commissure in midbrain.

**Collodion baby.** Rare congenital abnormality with a collodion-like membrane covering the entire cutaneous surface at birth (Lamellar ichthyosis of newborn).

**Collodion patches.** Patches of atrophic skin over knuckles in dermatomyositis.

**Colombo flop.** Heat oedema of extremities especially of ankles.

**'Comelither' look.** Drooping of eyelids in myasthenia gravis giving a typical facial appearance.

**Compass gait.** The patient is made to walk eight steps forward and backward repeatedly with eyes closed. With hemispheric lesions there will be gradual turning toward the affected side.

**Compass tongue.** Small spastic tongue in pseudo-bulbar palsy.

**Cooing murmur.** Murmur resembling cooing of a dove in AI.

**Cooper's s.** Normal subjects can hold their breath for 40-70 seconds in inspiration and 20-25 seconds in expiration, in myocardial failure the figures average 25 and 15 seconds respectively.

**Coopernail's s.** Echymosis of perineum and scrotum or labia in pelvic fractures.

**Cope's point.** Of appendicular tenderness at middle of line joining umbilicus and right anterior superior iliac spine.

**Cope's s.** 1. Tenderness over appendix on stretching the psoas m. by extending the thigh. 2. Palpable friction between turgid appendix and roughened parietal peritoneum in acute (pre-ileal) appendicitis. 3. Flexion and internal rotation of the right hip may cause pain if the obturator internus m. is in close relation to an inflamed pelvic appendix. 4. In acute cholecystitis, an early sign may be a palpable gallbladder.

**Cornell response.** Pyramidal tract response elicited by scratching dorsum of foot along inner side of extensor tendon of great toe.

**Corrigan's pulse.** See waterhammer pulse.

**Corrigan's s. 1.** Pulsating carotid arteries in AR. **2.** A purple line at junction of the teeth with the gums in chronic copper poisoning.

**Corvisart's facies.** Facies seen in AR characterised by swollen and purplish blue face, shiny eyes and puffy eyelids.

**Courtship paralysis.** Radial nerve paralysis from forearm pressed against a ledge in a car.

**Courvoisier's s.** Palpable enlargement of gall bladder in neoplasm of head of pancreas.

**Countryman's lip.** Carcinoma of lip in elderly men who have followed outdoor occupation.

**Cracked-pot s.** High-pitched percussion note over skull of infants with abnormal separation of sutures as in hydrocephalus.

**Cracked-pot sound (resonance).** A variety of tympanic resonance found pathologically over lung cavity communicating with a bronchus due to sudden expulsion of air from the cavity on percussion.

**Cradle cap.** Scalp seborrhoea in infants.

**Crazy pavement skin.** Dry crackled skin particularly on forearms and skin in kwashiorkor.

**Cricket ball hardening of m.** Peculiar hardening of middle portion of long ms. such as biceps on contraction in limb girdle muscular dystrophy owing to dystrophic changes at ends of ms.

**Crocodile hide.** Body covered with scales in ichthyosis.

**Crocodile tears.** Excessive secretion of tears when the salivary glands are activated in eating in recovering Bell's palsy.

**Crossed extension reflex.** With patient lying flat on his back, both legs flexed, stimulation of sole of one foot causes (besides dorsiflexion of homolateral leg) extension of contralateral leg indicative of incomplete spinal lesion.

**Crossed paralysis.** Cranial nerve palsies with contralateral sensory or pyramidal signs.

**Crossed tenderness.** See Rovsing's s.

**Crow feet face.** Fine wrinkles round corners of mouth and eyes in hypopituitarism.

**Crow's s.** Macular lesions in axillary fossa in von Recklinghausen's disease.

**Cruveilhier Baumgarten murmur.** Murmur heard over venous collaterals connecting portal and caval venous systems, on the abdominal wall.

**Cullen's s.** Ecchymoses round the umbilicus in intraperitoneal bleeding.

**Cup depression of sternum.** Moderately deep recession in sternum.

**Curtain movement of pharynx.** In paralysis of the soft palate on saying 'ah' there is no elevation of the palate on the affected side and the uvula is drawn to the normal side like a curtain.

**Curtsey s. (Marcuss Gunn s.).** If constriction of pupil in response to light is brief and is followed by dilatation, although the stimulus is continuously applied, it indicates disorder of the retina or of optic n.

**Cutaneous horn.** Horn-like excrescence of skin, usually on scalp and face in elderly persons who work in strong sunlight or have seborrhoea.

**Cutis naval.** In infants skin of abdominal wall may extend up the cord for an inch or more, and a long protruding stump remains after separation of the cord.

**Cyclist's palsy.** Ulnar n. palsy due to pressure upon the n. at the wrist.

**Dalrymple's s.** Widened lid slit in thyrotoxicosis.

**Damoiseau's s.** See Ellis's sign.

**Dance of tendons.** In cerebellar ataxia the tendons of feet and legs may be seen to be alternately tightening and slackening as the ms. act to maintain a steady posture.

**Dance's s.** Depression in the right iliac region in intussusception.

**Dancing carotids.** See Corrigan's s.

**Dancing eye (Opsoclonus).** Irregular repetitive eye movements form part of paraneoplastic syndrome, especially in neuroblastoma of childhood.

**Darier's s.** In mast cell abnormal growth disorders, mild trauma to the involved skin may produce urticaria or dermatographism.

**Darier-Roussy's nodules.** Subcutaneous sarcoids which commonly occur on the calves.

**Darting tongue.** See Jack-in-the-box tongue.

**Deck ankles.** Individuals who must continuously stand or sit in one position, may develop oedema in lower extremities. (Traveller's oedema).

**Decoy prostate.** Incrimination of prostate as a source of bleeding before excluding other cause of hematuria in elderly males.

**Deininger's s.** In acute phlegmonous gastritis, the abdominal pain which is often increasingly severe, is often relieved when patient sits up.

**Delange's s.** The infant supported about the trunk, feet touching the table top, is lifted suddenly up and down. This normally produces a supporting extensor thrust of the legs; persistent extension or scissoring of legs is abnormal.

**Delbat's s.** An aneurysm of a peripheral artery associated with absence of pulsation distal to the aneurysm in an extremity which appears to have an adequate blood supply can be obliterated with impunity because the collaterals are adequate.

**Delhi boil.** Contaneous leishmaniasis.

**Delphian nodes.** In the presence of thyroid enlargement, one or more palpable lymphnodes just off the midline above the isthmus are suggestive of carcinoma or thyroiditis.

**D'Espine's s.** If whispered voice sounds, normally heard over lower cervical vertebrae, are heard over upper thoracic vertebra as well, enlargement of tracheo-bronchial lymph nodes or tumor in the upper part of posterior mediastinum should be suspected.

**Devil's sound.** Continuous hum over the abdomen in Cruveilhier-Baumgarten disease.

**Dhobie itch.** Tinea cruris.

**Dialysis elbow.** Olecranon bursitis in patients on long-term hemodialysis.

**Diaphragm s.** In pleural fluid accumulation. The patient leans slightly forward, while the examiner percusses the suspected area with the finger tips of one hand, and palpates with the other hand the quadratus lumborum m. on same side. This causes the fluid to vibrate and the vibrations are felt by the hand on the m.

**Dietel's crisis.** In intermittent hydronephrosis following a reflex polyuria after an attack of renal colic, the renal swelling disappears. Also in mobile kidney.

**Differential cyanosis.** The face and hands are less blue than the feet and legs in PDA with reversed shunt. Pink toes compared to cyanotic fingers suggests transposition of great vessels with patency of the ductus.

**Digitus quinti s.** Of mild hemiparesis consists of abduction of the little finger when patient extends his arms and fingers forward with the palms down. The fingers normally tend to be adducted in this position, but in mild hemiparesis the 5th finger on the affected side assumes slight abduction with a definite space between it and the ring finger.

**Dimples of Venus.** Points which mark the site of sacro-iliac joints seen as dimples in many women.

**Dinner fork deformity.** Dorsal displacement forming a hump in Colles's fracture.

**Diver's palsy.** Decompression paraplegia in Caisson's disease.

**Doll's eyes movements.** See Cantelli's sign.

**Door stop breathing.** In diffuse pulmonary fibrosis inspiratory movement is restricted by the reduced distensibility of the lungs. In severe cases this may bring each inspiration to an abrupt halt.

**Dorendorf's s.** Fullness of the supraclavicular groove on one side in aneurysm of aortic arch.

**Dorsiflexion s.** See Homan's test.

**Double-jointedness.** Hypotonicity of ms. and ligaments in hyperparathyroidism.

**Doughy feel.** 1. Of abdomen in tuberculous peritonitis. 2. Of muscles in muscular dystrophy.

**Dovecot murmur.** Loud musical murmur in valve or chordae tendinae rupture.

**Dowager's hump.** Kyphosis due to senile osteoporosis usually in women.

**Down-beat nystagmus.** As the patient looks downwards, nystagmus is seen with rapid movements downwards. Such a finding suggests a lesion of posterior fossa or region of foramen magnum.

**Dresden China look.** Pink colour with pale skin in aortic stenosis.

**Dressler's s.** Flat percussion note over lower half of sternum in pericardial effusion.

**Dromedary gait.** Of dystonia musculorum deformans. The first few steps may be normal, but as the person gathers pace, one or both knees get flexed. The trunk may be in a position of extreme lordosis and the hips are partly flexed with a tilting forwards of the pelvis.

**Drop attacks.** Sudden weakness of legs making the patient fall but without loss of consciousness, most commonly due to basilar artery insufficiency.

**Drum beating tremors.** Peculiar tremors in Parkinsonism.

**Drummer's paralysis.** Tendon rupture of extensor pollicis longus muscle.

**Drummy abdomen.** Tympany in acute dilatation of stomach.

**Drumstick fingers.** Bulbous swelling of tips of fingers in advanced stage of clubbing.

**Drunken gait.** In cerebellar disease ataxia with eyes both open and closed.

**Duchenne limp.** Tilting of the trunk towards one side of the leg on the ground in paralysis of gluteus medius muscle or dislocation of hip.

**Duchenne's s.** Sinking of epigastrium on inspiration in paralysis of diaphragm.

**Duck-like walk.** See waddling gait.

**Duct s.** Reddening of papilla at the orifice of Stensen's duct, an early sign of mumps.

**Duguet's ulcers.** Superficial ulcers on anterior pillars of fauces, soft palate, and on pharyngeal wall at end of first week of typhoid fever in rare cases.

**Dupuytren's contracture.** Fibrosis of palmar fascia producing flexion contracture of ring or little finger or both.

**Duroziez' echo s.** Repetition of last word or clause of a sentence in certain cerebral diseases.

**Duroziez' rhythm.** Phonetic representation of classical physical signs of mitral stenosis 'ffout-ta-ta-rrrou', signifying presystolic murmur, loud first sound, opening snap, and rumbling middiastolic murmur.

**Duroziez' s. (murmur).** Diastolic murmur heard over femoral (or brachial) artery in AI.

**D.T.P. s.** Digital tingling on pressure sign. See Tinel's sign.

**Dutems and Cestan s.** See levator sign.

**Ebstein scratch.** Superficial scratching systolic murmur to the left of upper sternal border in Ebstein's anomaly.

**Ebstein's s.** Obtuseness of cardio-hepatic angle in large pericardial effusion.

**Ebstein's echo s.** A percussion sound resembling an echo, heard over a hydatid cyst.

**Egg-shell crackling.** Crackling sensation suggests osteosarcoma if it is found in connection with a long bone, or hydrocephalus or craniotabes if cranial bones.

**Egg-shell nails.** Soft, semi-transparent, easily bent and split nails may occur in arthritis, peripheral neuritis and leprosy.

**Elephant foot.** Marked non-pitting swelling of skin and soft tissues of ankles and feet in hypertrophic osteoarthropathy.

**Elfin facies.** In infants with idiopathic hypercalcemia or supravulvar AS—Widely set eyes, low set large ears, epicanthal folds, overhanging upper lip with receding chin and wide mouth.

**Ellis's S shaped curve (or line).** In pleural effusion, the level of fluid as determined by percussion is highest in axilla and lower in front and behind.

**Ely's s.** Of sacro-iliac joint affection. Patient lies on his face. The knee is flexed until the heel almost touches the buttocks. If sacro-iliac joint is affected, there may be pain referred to that joint.

**Enrot's s.** Oedema of eyelids and conjunctivae in exophthalmic ophthalmoplegia.

**Embryocardia.** (Foetal or tic-tac rhythm). Shortening of diastolic pause due to rapid heart rate, and alteration of first sound so that it resembles the second heart sound.

**End-point nystagmus.** In extreme position of movement and particularly in full abduction, nystagmoid jerks may be seen in the normal individual but subside after a few beats. This is more marked after taking sedative drugs.

**Epileptic jumps.** Myoclonus as a presenting feature in epilepsy.

**Eppinger stars.** See spider naevi.

**Epstein's pearls.** Temporary accumulation of epithelial cells on hard palate on either side of the raphe in newborn.

**Erb's palsy.** Upper brachial plexus paralysis due to injury to 5th and 6th cervical roots. See flail arm.

**Erb's point.** (Second aortic area) 3rd or 4th left intercostal space close to sternum where A1 murmur is usually best heard.

**Erb's s.** Increased electrical irritability of motor ns. in tetany.

**Escherich's s.** Muscular contractions of lips following percussion of labial mucosa in tetany.

**Eustace Smith's s.** Systolic murmur heard under inner end of right clavicle when the head is thrown back in tuberculosis of mediastinal glands (or in debilitated children).

**Ewald's node.** See Virchow's node.

**Ewart's s.** 1. Dullness, tubular breathing and oegophony at angle of left scapula in large pericardial effusion. 2. Palpable upper border of 1st rib owing to elevation of clavicle from increased respiratory effort in pericardial effusion.

**Ewing's s.** Percussion dullness at inner side of angle of left scapula, indicating fluid accumulation in pericardium behind the heart.

**Exclamation mark hair.** Broken hair in alopecia areata when removed show tapering off from the thick shaft to the attenuated knob of the bulb.

**Fabere s.** The letters in the word 'fabere' refer to the movements made by the hip in the performance of one of the tests of hip joint—F for flexion, ab for abduction, er for external rotation and e for extension.

**Faget's s.** Slow pulse in relation to temperature in yellow fever.

**Fainting lark (mess trick).** Inducing unconsciousness by hyperventilating, then either blowing hard with the nostrils closed, or suddenly compressing the chest.

**Falling drop sound.** Auscultatory finding due to drops of fluid falling from the lung border on to a fluid level.

**Farmer's skin (Sailor's skin).** Prolonged exposure to sunlight accelerates the progress of senile degenerative changes that develop in the aged, generally limited to areas not covered by clothing.

**Fat bottle calves.** Wasting of lower part of calf ms. in peroneal muscular atrophy.

**Fajersztajn's s.** Pain on opposite side on carrying out Lasèque maneuver.

**Fat neck.** Multiple, diffuse, symmetrical lipomatosis of neck in Madelung's disease.

**Finger s. (interosseous phenomenon) of Soques.** Active elevation and extension of a paretic arm is followed by involuntary hyperextension and abduction of the fingers.

**Ferret eye s.** Injected conjunctivae in yellow fever.

**Fishlike facies.** Antimongoloid slant of eyes, hypoplasia of malar bones and mandible, macrostomia and sunken cheek bones in incomplete mandibulofacial dysostosis.

**Fish-mouth.** Depression of corners of mouth in obesity associated with Cushing's syndrome.

**Fish-mouth wounds.** In Ehlers-Danlos syndrome the skin is fragile so that minor trauma is likely to produce gaping, fish-mouth wounds which hold sutures poorly.

**Fish skin.** Cornification of skin characterised by dryness and scaling in ichthyosis.

**Fisting.** Thumb lying in the palm tightly embraced by the fingers suggests hypoxia in an unconscious patient.

**Fixed smile.** See risus sardonicus.

**Flag s.** In kwashiorkor the hair presents characteristic changes in pigmentation; periods in which the hair is depigmented alternate with periods of more pigmented hair to produce bands of varying shares of hair.

**Flail chest.** Multiple rib fractures result in paradoxical movement in which the flail unstable part of chest wall is sucked in during inspiration and pushed out during expiration.

**Flare s. (Ankle blowout).** The precursor of a varicose ulcer is a splay of fine venules that course usually from medial malleolus and spread out to be lost beneath the thick skin of the heel.

**Flask s.** See bottle s.

**Flat chest.** Elongated narrow type of chest with reduced antero-posterior diameter.

**Fleche s.** It is the distance between the occiput and the wall with the patient standing shoulder to heel against the wall and the head maximally extended. Normally the head should touch the wall. However in spondylitis deformans and certain other lesions, this is not the case.

**Floating nails.** Clubbed fingers are proximally elevated from the matrix and movable on pressure.

**Floating patella.** In knee joint effusion, the lateral and anterior surfaces of the joint are compressed between the examiner's hands to limit escape of fluid, and the patella is then briskly pressed in a posterior direction with one finger. If the patella is heard or felt to knock against the femur and rebounds with release of pressure, fluid is present.

**Floppy baby.** Muscular hypotonia and weakness in infants with congenital myopathy or benign congenital hypotonia.

**Floury cornea.** A senile or presenile form of corneal opacity characterised by small white punctiform lesions in deep layers of cornea.

**Flush tank s.** Passage of large amounts of urine coincidental or temporary.

**Fly catcher tongue.** See Jack in the box tongue.

**Flying foetus.** 1. A hyperextended foetus presenting by the breech. 2. Posture assumed by infant with infantile muscular atrophy, with external rotation and abduction of hips and flexion of hips and knees.

**Football finger.** Inability to flex the distal interphalangeal joint due to avulsion of the finger's flexor profundus tendon.

**Foot's s.** Rhythmic protrusion of tongue suggestive of intracranial haemorrhage or oedema in newborn.

**Forchheimer's spots.** Small reddish papules on soft palate in early stages of rubella.

**Fordyce's spots.** Ectopic sebaceous glands characterised by discrete yellowish papules which usually first appear in preadolescent period on mucous membranes of cheeks and lips.

**Forearm s. of Leri.** In a normal individual if the fingers are passively folded into the hollow of his hand, and his wrist then sharply flexed, the forearm undergoes simultaneous flexion at the elbow. This reflex is abolished in presence of pyramidal lesion.

**Forestier's bowstring s.** Contraction of ipsilateral spinal musculature when bending to the side in ankylosing spondylitis.

**Fortune spots.** Benign macular or strip-like whitish discolouration of nails.

**Foxe's reflex.** Adduction-flexion of thumb on pinching hypothenar region, a pyramidal tract response.

**Fraantz's s.** Murmur in mitral stenosis is loud at beginning and at end of diastole.

**Frazer's s.** Of exophthalmos. In true protrusion of the eyeball the sulcus between the orbital margin and the covered globe is less shallow than normal.

**Friedreich's foot.** High arched foot with hammer toe in Friedreich's ataxia.

**Fothergill's s.** For diagnosing hematoma of the rectus sheath. When the recti are contracted by sitting, the mass is still felt and fixed, while an intra-abdominal mass is no longer palpable.

**Friedreich's s.** 1. Diastolic collapse of neck veins in constrictive pericarditis. 2. Pitch of percussion note over cavity is higher during inspiration than during expiration.

**Frog belly.** Pendulous abdomen in cretinism.

**Frog eyes.** Prominent eyes with suffused conjunctiva in chronic cor pulmonale.

**Frog face.** Tumor of nasopharynx or sarcoma of ethmoid as it expands widens the space between the orbits and flattens nasal bones.

**Frog hand.** Marked oedematous swelling of dorsum of hand in deep palmar abscess.

**Frog. (leg) position.** Assumption of least painful position by semi-flexion of hips and knees with feet rotated outwards, in subperiosteal bleeding in scurvy.

**Frog-like voice.** Slow, grating, monotonous voice in myxoedema.

**Froment's s.** The patient is asked to grip a book firmly with both hands and pull the hands away from each other without releasing the grip. In paralysis of adductor pollicis, the thumb is flexed at the interphalangeal joint.

**Frozen chest.** Flattening of affected side of chest most marked in pectoral region in chronic empyema.

**Frozen face.** Slowness of initiation and relaxation of facial movements in Parkinsonism.

**Frozen pelvis.** In extensive involvement of pelvis from carcinomatous infiltration, rectal examination may give sensation of a rock hard mass.

**Frozen pupils.** Loss or pronounced sluggishness of response of pupils to both light and accommodation in juvenile paresis.

**Fuchs's s.** Delayed movements of the upper eyelids as the eyes move downwards with quick ascent as the eyes move upward, may occur in certain conditions involving oculomotor ophthalmoplegia, classically in exophthalmic ophthalmoplegia.

**Fugitive swellings.** Raised, painful, tender, red areas of the skin at the extremities due to metabolism of growing filarial larvae.

**Full circle bruit.** Continuous machinery murmur over arterio-venous fistula.

**Funnel chest. (Pectus excavatum).** Depression of body of sternum and xiphoid process together with inward curving of costal cartilages and adjacent ribs.

**Furbringer's s.** To distinguish between empyema and subdiaphragmatic abscess the behaviour of the exploring needle is observed, if the outer end rises when the patient inspires the pus is above the diaphragm and vice versa.

**Gag reflex.** Touching the posterior surface of pharynx with a wooden tongue depressor or throat swab results normally in contraction of pharynx, elevation of palate, and retraction of tongue; unilateral absence of the reflex may be due to loss of sensation, or motor power, or both.

**Gairdner's line.** A line from left anterior axillary fold to umbilicus is resonant throughout.

**Galant's reflex.** Elicited upto 2 months. The baby is held by placing a hand under the chest and the skin between the ribs and iliac crest on one side is pinched repeatedly. This results in curving of the trunk in that direction.

**Gallavardin's s.** For detection of pulsus alternans. With gradual deflation of manometer cuff, the sounds after appearing at the systolic level suddenly show a doubling of rate a few mm. lower.

**Gamekeeper's thumb.** Weakness of ulnar collateral ligament of metacarpophalangeal joint of thumb (due to repeated stretching of the ligament when killing a rabbit).

**Gargoyle facies.** Large head, grotesque face, thick lips, nostrils and ears in Hurler's syndrome.

**Garrod's nodes (pads).** Soft tissue swellings over proximal interphalangeal joints in osteoarthritis.

**Gendrin's s.** Dullness often extending to right beyond sternum in 5th intercostal space and to left particularly caudal to apex beat in pericardial effusion.

**Geographic tongue.** Developmental abnormality with circular and annular red and flattened patches interspersed with zigzag lines giving the appearance of a geographical map to the tongue.

**Gerhardt's dullness.** Thin, triangular area of dullness in 2nd and 3rd left interspace overlying dilated pulmonary artery in PDA.

**Gerhardt's s.** 1. Absence of laryngeal movement in bilateral recurrent laryngeal n. palsy. 2. Variation of percussion dullness over an oblong cavity half filled with fluid, with position of patient.

**Giant 'a' wave.** Increased amplitude of venous 'a' wave due to right atrium contracting against increased resistance.

**Gibson murmur.** Loud harsh continuous murmur in PDA.

**Gifford's s.** Inability to evert upper lid in exophthalmic goitre.

**Gill's s.** In trauma to hip joint in a child, when the joint is swollen, it will feel thicker than the normal one.

**Glass tongue.** Smooth, polished, small and hard tongue found occasionally in cases of tertiary syphilis.

**Gliding gait.** Shuffling gait in Parkinsonism.

**Glove (and stocking) anaesthesia.** Sensory loss of upper limb of glove (and stocking) distribution in hysteria.

**Globe lag.** In hyperthyroidism the lid moves upward more rapidly than does the globe as the patient looks upward.

**Glossy fingers.** Thin smooth skin of fingers in scleroderma and neuritic atrophy.

**Gluteal gait.** See Trendelenburg gait.

**Goat sound.** Aegophony heard just above level of pleural effusion.

**Goldstein's s.** Wide space of distance between great toe and adjoining toe seen in cretinism and mongolian idiocy.

**Golf ball peristalsis.** In marked hypertrophic pyloric stenosis, the waves of peristalsis which take shape at the left costal margin and roll slowly across the epigastrium, give the appearance of a succession of golf balls slowly passing across the upper abdomen.

**Golfer's elbow.** Painful condition round medial side of elbow due to epicondylitis.

**Gollam's s.** Marked pallor of the foot, sometimes of lower leg, when the patient lying horizontal with leg extended, repeatedly raises it at hip joint against resistance.

**Golthwate's s.** Limited extension of knee after the thigh has been flexed on the trunk. Significance same as positive Lasegue's sign.

**Gonda's s.** The second toe is held firmly and forcibly flexed for a few seconds. It is then suddenly released. The toe extends when the response is abnormal in pyramidal lesion.

**Goose flesh.** Raised but not indurated nodules of varying size in tuberos sclerositis.

**Goose neck artery.** In marked arteriosclerosis of radial artery, the wall of the artery feels hard and irregular on light palpation. (See pipestem artery).

**Gordon's s.** 1. Pendular knee jerk in rheumatic chorea. 2. Elicitation of plantar reflex by hard squeeze of the calf ms.

**Gordon's extension s.** Extension and occasional fanning of flexed fingers by pressure on the radial side of the pisiform bone in pyramidal lesion.

**Gordon's flexion s.** Adduction and flexion of thumb by squeezing ms. of forearm in pyramidal lesion.

**Gordon Holmes rebound s.** See rebound phenomenon.

**Gothic palate.** High arched palate in cranio-facial dysostosis.

**Gottvon-Heuck spots.** Porcelain coloured, lentil-sized, lesions on extensor surface of fingers in dermatomyositis.

**Gower's s.** 1. Assumption of erect posture by patients suffering from pseudo muscular dystrophy by 'climbing up' themselves. 2. Modification of Lasegue's s. Sometimes the pain is brought on while the patient is supine with the thighs and legs extended, merely by dorsiflexion of the foot.

**Graefe's s.** (Lid lag). In hyperthyroidism the upper lid may lag behind the globe as the gaze is lowered, momentarily unmasking the rim of sclera above the cornea.

**Pseudo Graefe's s.** Elevation of upper lid on downward gaze in n. regeneration after oculomotor paralysis due to misdirected axones. (Also see Fuchs's s.).

**Graham Steell murmur.** Early diastolic murmur due to pulmonary incompetence from pulmonary hypertension in mitral stenosis.

**Grancher's s.** See granular breathing.



**Guillain and Barre midplantar reflex.** Plantar flexion with fanning of toes on tapping midplantar region of foot in reflex hyperactivity as with pyramidal lesions.

**Gunn pupillary s.** See Marcus Gunn pupillary s.

**Gun-stock deformity.** Cubitus varus due to malunion of supra-condylar fracture.

**Gutter chest.** Rare variety of congenital deformity of chest characterised by shallow vertical groove along midsternal line.

**Guttman's s.** Bruit heard over thyroid in exophthalmic goitre.

**Guyon's s.** Ballotment and palpation of floating kidney.

**Haenel's s.** Increased pain sensation on pressure on globe of the eye during early stages of tabes dorsalis.

**Hahn's s.** Persistent rotation of head from side to side in cerebellar disease of childhood.

**Half-and-half nail.** Condition where proximal half of nail is pale and distal half darker than normal, seen in renal failure.

**Hall's s.** Tracheal diastolic shock in aneurysm of aorta.

**Hall's electric bell reaction.** Light pressure over the area of a ventral hernia may cause immediate belching.

**Halo saturninus.** Lead line along gingival margin in lead poisoning.

**Hamman's s.** To-and-fro crunching sound in mediastinal emphysema best heard at cardiac apex.

**Hammer toe.** Permanent flexion of proximal inter-phalangeal joint of great toe as in rheumatoid arthritis.

**'Hand in the pocket' area.** Area of thigh supplied by lateral cutaneous n. of the thigh.

**Hand-mouth reflex of Babkin.** Present from birth to 3 months of life. Pressure on the hand results in opening of mouth, flexion of neck, and sometimes closure of eyes, and flexion of forearm.

**Hanging groin.** In filariasis the atrophied inelastic skin of the groin hangs down in a fold containing enlarged femoral or inguinal lymph nodes

**Hanging jaw s.** Prevention of closure of mouth due to involvement of masseters.

**Hayne's s.** In poliomyelitis, the head falls back when shoulders are elevated with patient in supine position.

**Hide bound skin.** Thickened and indurated skin in scleroderma.

**Hare lip.** Congenitally cleft palate.

**Harlequin colour.** Marked pallor, or redness seen in some infants over one half of the body in first seven days.

**Harris's s.** Ataxic nystagmus in the weak adducting eye with normal movement in the abducting eye seen in lesions of medial longitudinal bundle, and disseminated sclerosis.

**Harrison's sulcus.** A transverse furrow above level of diaphragmatic attachment in rickets.

**Harvey's s.** If both index fingers are placed side by side firmly on a vein, and the finger nearer the heart is moved upward to empty a short length of vein, the release of the distal finger will allow speed of venous filling to be observed.

**Hatchcock's s.** Tenderness just beyond angle of jaw, an early sign of mumps.

**Hatchet face.** In dystrophia myotonica selective muscular wasting in face produces expressionless or glum face.

**Hawk head (Sparrow head).** Bird like facial appearance in microcephaly due to reduced size of cranium in conjunction with flat receding forehead.

**Haygarth's nodes.** Fusiform swellings of proximal interphalangeal joints in rheumatoid arthritis.

**Heberden's nodes.** Bony overgrowths of the terminal phalanges of the fingers in osteoarthritis.

**Heebie jeebies.** Syndrome usually encountered in periodic drinkers (alcoholic), a day or so after a bout.

**Head lag.** Inability to lift the head in an infant in the pull-to-sitting test beyond age of 5 months may be first evidence of cerebral palsy or other neurologic deficit.

**Heel pads.** Overgrowth of soft tissues of heel in acromegaly.

**Heliotrope eyelids.** Oedema and erythema round the eyes, an early cutaneous manifestation of dermatomyositis.

**Henle Coenen s.** Of arterio-venous fistula. The artery distal to the fistula pulsates even though the main trunk is compressed at the site of fistula.

**Higoumenaki's s.** Thickening of inner end of clavicle in congenital syphilis.

**Hill's s.** Much higher blood pressure in legs than in arms in AI.

**Hippocratic facies.** Anxious features and hollow expression in peritonitis.

**Hippocratic fingers.** Watch glass nails associated with drumstick fingers.

**Hippocratic succussion.** Succussion splash in hydropneumothorax.

**Hippocratic worms.** Sloughing of tendon and subsequent excretion in neglected suppurative tenosynovitis.

**Hirschberg s.** Elicitation of adductor reflex of foot by stroking inner border of foot from great toe to heel: this is followed by

contraction of posterior tibial ms. with resulting adduction, inversion, and slight plantar flexion of foot, a pyramidal tract response.

**Hochsinger's s.** Closure of the hand on applying pressure to the inner aspect of biceps m. in tetany.

**Hod carrier's palsy.** Lesion of long thoracic n. due to carrying of heavy, sharp cornered objects on shoulder.

**Hodgkin-Key murmur.** Musical murmur in association with retroversion of an aortic cusp.

**Hoffman's s.** 1. In tetany, stimulation (mechanical or electrical) of a sensory n. will cause muscular spasm. 2. In pyramidal syndrome. Terminal phalanx of patient's middle finger is held between examiner's finger and thumb and flicked downwards. In pyramidal lesion the tips of the other fingers flex and the thumb flexes and adducts.

**Hofstatter's s.** Shining of blood through an umbilical hernia in acute hemorrhagic pancreatitis.

**Holman's s.** Rebound tenderness on light percussion in abdominal inflammation. Commencing in an apparently unaffected area, the abdomen is percussed systematically with the object of finding the point of maximum tenderness.

**Holme's s.** See rebound phenomenon.

**Homan's s.** Pain in calf on dorsiflexion of foot in phlebothrombosis.

**Homme rouge.** Erythroderma or diffuse erythematous infiltration of skin in chronic lymphatic leukemia.

**Honk (Systolic whoop).** Loud sound occurring usually in late systole every few cycles due to dysfunctioning of mitral valve.

**Hook s.** Flexion of the finger in acute tenosynovitis.

**Honeymoon paralysis.** See bridegroom's paralysis.

**Hooking response.** If patient's flexed fingers are gently extended by the fingers of the examiner, they will hook the fingers of the examiner, a pathologic variation of finger flexion reflex. Significance same as groping response.

**Hoover's s.** 1. Of hysterical hemiplegia. In a patient with organic hemiplegia, when he attempts to raise the paralysed extended leg, the opposite unaffected heel makes counterpressure backwards, if paralysis is hysterical there is no such counterpressure. 2. In massive pericardial effusion due to depression of diaphragm, the left sub-costal margin does not move laterally on inspiration but remains stationary or may actually move medially.

**Hope's s.** 1. Double heart beat in aortic aneurysm. 2. Systolic retraction of precordial impulse when heart is adherent to vertebrae in adhesive pericarditis.

**Hopping carotids.** See dancing carotids.

**Horder's spots.** Faint macular rash simulating rose spots of typhoid fever in psittacosis.

**Horse face.** Prominence of jaw and bony ridges in head and face in acromegaly

**Horse-shoe shaped dullness.** With free fluid in peritoneal cavity the umbilical and epigastric regions remains resonant and on percussion the area of dullness appears horse-shoe shaped with a concave upper border.

**Hot-cross-bun skull.** Increased prominence of frontal and parietal bosses produces intersecting grooves at saggital and transverse sutures in congenital syphilis.

**Hour-glass conduction of murmur.** In AS the murmur at times fades out as one inches the stethoscope from aortic area towards mitral area, and then becomes louder again at the apex.

**Hour-glass nails.** Peculiar shape of nails in Vohwinkel's syndrome.

**Housemaid's knee.** Chronic prepatellar bursitis due to repeated occupational injury in housemaids.

**Hubbenet's spots.** See Bitot spots.

**Humming top murmur.** Continuous murmur of PDA.

**Hung-up reflex.** A choreic movement superimposed on a reflex movement (e.g. knee jerk), checks its flight so to speak.

**Hunterian chancre.** Firm elevated papule of penis, vulva or cervix in primary syphilis.

**Hunter's glossitis.** Smooth tongue in pernicious anemia.

**Hutchinson's freckle.** Precancerous condition starting on facial skin as a small dark brown spot; ultimately a number of macules coalesce to form irregular pigmented areas.

**Hutchinson's pupil.** Unilateral dilated and fixed pupil seen typically with subdural hematoma, or any cause of subtentorial brain swelling leading to uncal herniation.

**Hutchinson's teeth.** Notching of incisor teeth of second dentition, which also tend to be widely spaced and taper from gum margin to cutting edge, in congenital syphilis.

**Hutchinson's wart.** Condyloma on the tongue, it is strictly a median wart.

**Hyane's s.** In poliomyelitis the head tends to fall back if the shoulders are elevated with the patient in the sitting position.

**India rubber man.** Hyperextensibility of joints in Ehlers-Danlos syndrome.

**Infant Hercules.** In some cases of precocious puberty the precocity is associated with marked degree of muscle development.

**Ink spots.** Large black naevi that occasionally precede generalised pigmentation of Addison's disease.

**Inversion of abdominal reflex.** Deviation of umbilicus and linea alba to opposite side of stimulation in unilateral abdominal paralysis both of peripheral or central pyramidal origin.

**Inversion of plantar reflex.** See Babinski's s.

**Inversion of radial reflex.** In lesion of 5th cervical segment on eliciting the brachioradialis reflex there may be contraction of flexors of the hand or fingers without flexion and supination of the forearm.

**Inverted champagne bottle leg.** In peroneal muscular atrophy the wasting affects the legs and distal one-third of thigh but spreads no further.

**Invisible pillow s.** Muscle contraction in tension headache.

**Iris wobble.** Iridodonesis seen in Marfan's syndrome by asking the patient to look to one or other side suddenly.

**Itard-Cholewa's s.** Anaesthesia of tympanic membrane in otosclerosis.

**Inverted 'V' shaped upper lip.** In Mongolism.

**Jack-in-the-box.** Way in which the child with rheumatic chorea jumps out of bed.

**Jack-in-the-box tongue.** Rapid protrusion and withdrawal of tongue in rheumatic chorea.

**Jack-knife s.** Sudden pressure over appendix in acute appendicitis causes immediate involuntary flexion of the right thigh.

**Jadasson's nevus.** Yellow, plaque-like hamartoma of skin that contains excess of sebaceous glands and occurs predominantly in scalp and neck.

**Jadassohn—Tieche naevi.** Multiple blue naevi in Niemann-Pick disease.

**Janeway spots (lesions).** Non-tender macules on palms and soles in SBE.

**Jaunty gait.** Characteristic gait in chorea due to combination of jerky involuntary movements with muscular hypotonia.

**Jellinek's s.** Brownish pigmentation seen in cases of hyperthyroidism.

**Jelly nystagmus.** Fine, quivering movements best seen with ophthalmoscope, characteristic but not diagnostic of disseminated sclerosis.

**Jerk nystagmus.** Slow drift of the eyes away from the attempted fixation point, followed by a quick corrective movement. Caused by lesions of nervous pathways involved in maintenance of visual fixation and eye movement.

**Jerky pulse.** (Slapping pulse). Pulse with rapid upstroke but ill-sustained, and having a sudden collapse, observed in HOCM.

**Josserand's s.** In early fibrinous pericarditis a faint grating systolic bruit may be associated with marked accentuation of 2nd pulmonary sound when deposits of fibrin are located anteriorly and pressure in pulmonary artery is increased.

**Jumping Jack response.** Sudden and simultaneous jerks of extremities when sternum or ms. of chest or thigh are tapped sharply in infants with cerebral injury.

**Kashida's thermic s.** In tetany development of hyperesthesia and spasm following application of either hot or cold irritants.

**Karplus' s.** A modification of vocal resonance in which on auscultation over pleural effusion, the vowel 'u' spoken by the patient is heard as 'a'.

**Kayser-Fleischer ring.** Pigmented greenish-grey ring at periphery of cornea in Wilson's disease.

**Keel (boat shaped) head.** Narrow pointed forehead with midline ridging giving a triangular appearance of head when viewed from above.

**Kehr's s.** Pain referred to shoulder joint region in acute or subacute inflammation of undersurface of diaphragm, or rupture of spleen.

**Kehrer's s.** Pressure over deep occipital point produces severe pain to avoid which patient jerks his head backward and to the side.

**Kanavel's s.** Tenderness over the infected sheath, especially over its proximal cul-de-sac in acute tenosynovitis.

**Kenawy's s.** In bilharzial cirrhosis, auscultation over the liver beneath xiphoid process reveals a venous hum louder on inspiration, due to engorgement of splenic vein.

**Kerandel's s.** Peculiar delayed sensation to pain combined with deep hyperesthesia in trypanosomiasis.

**Kernig's s.** A method of demonstrating resistance to spinal flexion. The hip is first flexed and attempt is then made to straighten the leg. In presence of meningeal irritation this maneuver produces pain, and extension of knee is resisted as hamstringing ms. go into spasm.

**Keyhole pupil.** A congenital anomaly of iris with aniridia and coloboma.

**King's evil.** Cervical lymphadenitis.

**Klein's s.** In mesenteric lymphadenitis, after laying patient on left side for few minutes, the maximum site of tenderness moves to left of original site.

**Kleist's s.** Fingers of patient's hand when gently elevated by fingers of the examiner will hook into examiner's fingers, indicative of frontal and thalamic lesions.

**Klippel Feil s.** Flexion of thumb associated with passive extension of other fingers; present in organic hemiplegia.

**Klumpke's palsy.** A form of partial brachial palsy due to lesion of the trunk formed by 8th cervical and 1st dorsal roots.

**Knuckle, knuckle, dimple, dimple s.** On making the patient make a fist, shortening of the 1st, 4th and 5th (at times also of 3rd) metacarpal and metatarsal bones is seen in pseudohypoparathyroidism.

**Kocher-Cushing s.** Rising blood pressure and slow pulse rate from increased intracranial pressure.

**Koplik's spots.** Small bluish-white spots on erythematous base seen on buccal mucosa opposite molar teeth in preeruptive stage of measles.

**Kopp's asthma.** Mild degree of stridor in children thought to be caused by pressure of enlarged thymus.

**Kortokoff sounds.** Sounds produced by pulsation of the artery under a partially constricting blood pressure cuff.

**Kronig's isthmus.** Band of resonance found posteriorly over apex of lung.

**Kundrat's s.** Swelling of lymphnodes at base of tongue in presence of a palpable epigastric tumor is indicative of lymphosarcoma of stomach.

**Kussmaul breathing.** (Air hunger). Slow and deep respirations seen at times in diabetic acidosis and uremia.

**Kussmaul's pulse.** See paradoxical pulse.

**Kussmaul's s.** A rise, instead of usual fall in JVP on inspiration in pericardial effusion or constrictive pericarditis.

**Ladder-rung peristalsis.** In small intestinal obstruction, the peristaltic waves run transversely across the abdomen.

**Laennec's s. (pearls).** Small pellets of opaque substance in sputum in bronchial asthma.

**Lafora's s.** Picking of the nose, an early sign of cerebrospinal meningitis.

**Laguere's s.** Elicited by flexion, abduction and outward rotation of hip; pain results in presence of hip joint disease.

**Lancisi's s.** Large positive systolic venous wave due to tricuspid regurgitation.

**Landau reflex.** Present in normal infants. If the infant is held in the examiner's hand in the prone position so that the body is parallel with the floor, there is dorsiflexion of the head with extension of the vertebral column and the body assumes an arc.

**Landolf's s.** Systolic contraction and diastolic dilatation of pupil in aortic incompetence.

**Lantern jaw.** Prominent lower jaw (prognathism) in acromegaly.

**La Roque's s.** Pressure over appendix may cause the right testis to be drawn up in acute appendicitis.

**Lanz's point.** Of appendicular tenderness, junction of right and middle thirds of a line drawn between anterior superior spines of ilia.

**Lasegue's s.** 1. Passive stretching of sciatic n. by extension of knee with hip flexed produces pain. Positive in disease of lumbo-sacral roots. 2. Inability to move the limb when eyes are closed in hysterical anaesthesia.

**Crossed Lasegue's s.** Pain down the back of one leg when the opposite leg is passively elevated.

**Reversed Lasegue's s.** Limitation in hyperextension of straight leg while in prone position suggests spinal n. involvement at midlumbar level, or lesion of lumbo-sacral joint.

**Lavatory s.** Of ectopic gestation. Sharp and stabbing pain, as a rule situated in the pelvis, and frequently radiating to the rectum.

**Lawrence's s.** Localised leg pain on coughing in thrombophlebitis.

**Lead pipe (Plastic) rigidity.** A type of increased tone of ms. in which there is equal resistance in both agonists and antagonists with the result that some degree of hypertonicity is felt throughout each movement, seen in extrapyramidal lesion.

**Legendre's s.** Greater resistance on unaffected side in the closed eyelid to it being raised by examiner's finger in facial hemiplegia.

**Lemon on match sticks.** General contour of the body with thin legs in advanced stage of Cushing's syndrome.

**Lemon yellow colour—of skin** in pernicious anemia.

**Leonine facies.** In leprosy thickening and superabundance of skin with flattened nose. Also in pachydermoperiosteitis.

**Leopard growl.** Stridor in aneurysm of ascending arch of aorta.

**Leopard skin.** Lichenification and mottled depigmentation of skin in filariasis of scrotum.

**Lerman-Means scratch.** Left sternal border 'scratch' on auscultation possibly due to pulmonary conus dilatation and increased blood flow in thyrotoxicosis.

**Lester's s.** A clove-leaf-shaped area of dark pigmentation around inner margin of iris in nail-patella syndrome.

**Levator s.** In facial palsy on slow voluntary eye closure, the upper lid on the weak side becomes slightly elevated.

**Levi's forearm s.** The examiner holds patient's supinated and slightly flexed forearm in the hand and with the other forcibly flexes patient's fingers and wrist. In normal persons this is accompanied by involuntary flexion movement of elbow, in organic hemiplegia this response is absent.

**Levine's clenched fist s.** In angina pectoris the clenched fist over the sternum may graphically depict the constricting nature of the discomfort.

**Lewin's s.** Snapping back of knee into flexion when released. Same significance as Lasegue's s.

**Lhermitte's s.** (Barber chair s.). Sudden transient tingling sensations described as electric shocks in arms, trunk or legs on bending head forward, or at times backward nearly always indicates a lesion affecting posterior columns of cervical cord.

**Lichtheim's s.** In subcortical aphasia although patient cannot speak, he is able to indicate with his fingers the number of syllables in the word he is thinking of.

**Ligat's s.** The skin in Sherren's triangle is lifted and pinched, it is hyperesthetic in appendicitis.

**Lindsay's nails.** Half-and-half nail with proximal portion whitish while the distal portion is red, pink or brown.

**Litten's s.** 1. In pleural effusion the shadow of the diaphragmatic movement as seen on the chest wall when the patient breathes is not visible. 2. In ventral hernia. The examiner places his hand on the abdomen over the suspected area as the patient coughs, if hernia is present a vibration or tremor will be felt.

**Little toe reflex of Puussepp.** Slow abduction of little toe in response to light stroking of the outer border of the foot, said to be a sign of extrapyramidal involvement.

**Live flesh (Live blood).** Myokimia, a benign involuntary movement of ms. e.g. twitching of eyelids,

**Liver flap.** Flapping or wing-beating tremors of outstretched hands in hepatic precoma, cerebral vascular disease, uremia or severe pulmonary insufficiency.

**Liver palms.** Redness of palmar eminences in cirrhosis of liver.

**Liver pulse.** Pulsations of ventricular type of a congested liver particularly in presence of atrial fibrillation.

**Lizard tongue.** (Watch spring tongue). After protrusion the tongue is shot back into the mouth at lightening speed, observed in rheumatic chorea.

**Lizard (elephant) skin.** Characteristic dermatosis in severe malnutrition.

**Lloyd's s.** Pain in loin on deep percussion over the kidney in renal colic, even when pressure causes no pain.

**Lobster hand.** Syndactyly associated with deep central cleft dividing the hand into two parts, a heredo-familial disorder.

**Lock jaw.** Trismus or inability to open jaw in tetanus.

**Locomotor brachials.** Atheromatous brachial artery visible as a tortuous pulsating vessel along inner border of biceps m.

**Loewi's s.** Dilatation of pupil after installation of few drops of 1:1000 adrenaline solution into conjunctival sac in acute pancreatitis.

**Loose shoulders.** In progressive muscular dystrophy, the infant or child, if lifted with the examiner's hands in the axillae, will tend to slip through the examiner's hands.

**Lomtadse s.** Plantar flexion of toes on pressure over anterior aspect of tibia in basal ganglion (extrapyramidal) involvement.

**Lovibond's s.** Obliteration of normal angle between the base of the nail and the skin, an early sign of clubbing.

**Lover's paralysis.** Pressure damage to median n. caused by the weight of the head of the sleeping partner.

**Lucatello's s.** Higher axillary temperature as compared to oral in hyperthyroid patients.

**Lugubrious facies.** Typically long, sad face of dystrophia myotonica.

**Macewen's s.** Cracked pot percussion note found in hydrocephalus and increased intracranial pressure in infants and children due to abnormal separation of sutures.

**Machinery murmur.** Loud continuous murmur in PDA.

**Mackenzie's s.** Tender areas in pectoral m. following cardiac infarction.

**Maddona-like face.** Face with transverse smile in facio-scapulo-humeral dystrophy.

**Madelung's deformity.** Sharp upward protrusion of lower ulna due to dorsal subluxation of the distal end of the bone.

**Madlung's neck.** Symmetrical lipomatosis of neck in robust, alcoholic, middle-aged males.

**Magenta tongue.** Characteristic colour of tongue in ariboflavinosis.

**Magnan's movement.** Forward and backward movement of the tongue when it is drawn out in GPI.

**Magnun's s.** A subjective feeling of multiple small worms creeping about under the skin in cocaine addicts.

**Magnus and de Kleijn's tonic neck reflex.** In hemiplegia rotation or lateral flexion of head towards paralysed side may cause extension of the paralysed limbs, movement to the normal side has the reverse effect.

**Malgaigne's bulges.** Bulgings of abdominal wall just above iliac crests and inguinal ligaments demonstrated by rising test indicating poor tone of oblique ms. in elderly men.

**Mallet finger.** Permanent flexion of terminal phalanx at distal joint due to rupture of extensor tendon that inserts on terminal phalanx.

**Mammary souffle.** Continuous murmur heard along line of internal mammary artery during late pregnancy or lactation.

**Mancisi's s.** Systolic pulse of tricuspid incompetence occurring late in systole is an early sign.

**Mangoe toe.** Tinea of the big toe prevalent during mangoe season.

**Mankop's s.** Of genuine hyperesthesia. Increase in pulse rate on pressure over a painful spot, not present in simulated pain.

**Marche à petits pas.** Gait with small steps in advanced cerebrovascular disease.

**Marcus-Gunn pupillary s.** For differentiation of retrobulbar neuritis from functional visual loss. In a patient, say with left sided retro-

bulbar neuritis, the pupil may respond well to monocular testing to direct light response. However, if the light is slowly alternated from eye to eye, it will be seen that the right pupil constricts to the light but the left pupil dilates.

**Marie's s.** Tremors of body or of extremities in exophthalmic goitre.

**Marie-Foix thumb adductor reflex.** Adduction and flexion of thumb and sometimes flexion of adjacent digits in response to superficial stroking of the palm if unilateral and associated with other reflex changes suggests pyramidal tract involvement.

**Marie-Foix s. (or phenomenon).** Extreme passive plantar flexion of foot or toes may initiate reflex of spinal automatism.

**Marinesco-Radovici palatomental reflex.** Wrinkling of skin of chin and slight retraction and sometimes elevation of angle of mouth on scratching with a blunt point or tapping over the thenar eminence from wrist to proximal phalanx. This s. may be observed with pyramidal involvement, frontal lobe lesion or diffuse cortical involvement.

**Marjolin's ulcer.** Carcinoma developing in a scar.

**Mask of Duchenne.** Loss of superficial sensation in the central areas of the face in tabes.

**Mask of pregnancy.** Blotches of melanotic pigment over bridge of nose, cheeks and forehead in pregnancy (melasma gravidarum).

**May's s.** 1. Visible engorgement of veins over under surface of tongue in sitting posture in presence of raised venous pressure. 2. Overlying cutaneous oedema in lymphogranuloma inguinale serves to distinguish it from syphilitic adenitis.

**Mayer's reflex.** With the patient's hand in supine position, the ring finger is firmly flexed at the proximal joint. The normal response is adduction and flexion of the thumb; this is absent in pyramidal tract disease.

**Mayne's s.** Mild to moderate AI can be detected by demonstrating a diminution of pressure of more than 15mm of Hg. in the arm when elevated over the head as compared with the values when arm is at heart level.

**Mayo Robson's point.** Tenderness in the upper segment of rectum in cholecystic disease.

**McBurney's s. (point).** Classical site of greatest tenderness in appendicitis at junction of lateral third with medial two-thirds of a line joining anterior superior spine and umbilicus.

**McCarthy reflex.** Tapping the supraorbital region produces predominantly unilateral blinking.

**Mean's s.** Global lag during elevation of eyeball in thyrotoxicosis.

**Mee's lines.** Transverse white bands in nails may occur in Hodgkin's disease, high fevers, local nutritional derangement or thallium toxicity.

**Meig's median spasm.** Episodic inability to open eyes, at times seen in elderly or middle aged, some of whom may develop Parkinsonism.

**Melanin spots.** Pigmented spots on lips, mouth and fingers in patients with generalised intestinal polyposis.

**Mendel-Bechterew s.** Flexor movement of four outer toes induced by tapping dorsum of the foot in region of cuboid bone, a sign of pyramidal disease.

**Mendel's s.** An area on epigastrium about the size of a coin tender to percussion, in gastric or duodenal ulcer.

**Metallic tinkle (of Laennec).** A tinkling sound heard over the chest when air bubbles emerge through a small broncho-pleural fistula below the fluid level in hydro-pneumothorax.

**Meynet's s.** Nodes in capsules of joints and tendons in rheumatic conditions especially in children.

**Milian's erythema.** Erythema occurring 7 to 9 days after first injection of arsphenamine and other drugs.

**Milk leg.** See white leg.

**Milker's nodules.** Hemispherical, bean-sized, tender nodules on dorsum of thumb and index finger of dairy workers.

**Milking s. (Milkmaid's grip).** In rheumatic chorea making the patient squeeze the examiner's hand results in variations of pressure characterised by sudden releases alternated with renewed contractions.

**Milky urine.** Whitish urine in chyluria.

**Milk-wheel murmur.** Churning and splashing sound over precordium in venous air embolism.

**Milroy's (Meig's) oedema.** Heredo-familial lymphoedema usually of the lower extremities.

**Mimic paralysis.** Loss or diminution of emotional movements with preservation of voluntary movements of face in some cases of hemiplegia.

**Mimic spasm.** Sudden brief incurrent movements or spasms initiated by voluntary action but which cannot be stopped voluntarily; seen in Brissaud's disease.

**Miner's elbow.** See student's elbow.

**Miner's nystagmus.** Gross nystagmus due to impairment of visual fixation resulting from long periods of work in conditions of poor illumination.

**Minor's s.** Method of rising from sitting position characteristic of patients with sciatica. The patient supports himself on the healthy side, placing one hand on the back while he bends the affected leg.

**Mirchamp's s.** A sign of mumps. If a substance such as vinegar is applied to mucous membrane of tongue, a painful reflex secretion of saliva occurs in the gland about to be affected.

**Mirror movements.** In Klippel-Feil syndrome voluntary movements of one upper extremity are more or less imitated by the other upper extremity.

**Mirror writing.** Writing from right to left, may be seen in hemiplegia.

**Mitten hands (fingers).** Webbed fingers.

**Mobius's s.** Absence of convergence of eyes on moving an object from some distance towards the nose in presence of exophthalmos.

**Moller's glossitis.** (Slick tongue, glossy tongue). Chronic superficial excoriation of tongue, principally on tips and edges. The lesions are red, well-defined, irregular patches in which the filiform papillae are thinned or absent, and the fungiform papillae are swollen.

**Monakow's s.** Stroking the lateral margin of foot is followed by eversion and abduction of the foot.

**Monday fever.** In bysinosis the characteristic history is that the worker after some years in the industry becomes aware of chest tightness and wheeze after the week-end break on Monday.

**Mongolian spot.** Illdefined patch of pigmentation over sacral area in many infants of Asiatic race.

**Monkey hand.** See ape hand.

**Montpellier's s.** The centre of the granulating base of ulcer of Oriental sore contains a hard excrescence.

**Montz's s.** Extensor plantar response following forceful passive plantar flexion at ankle in pyramidal lesion.

**Moon blindness.** Congenital night blindness.

**Moon face.** Face rounded by oedema as in nephrosis, or fat as in Cushing's syndrome or steroid therapy.

**Morris's point.** Point of tenderness one and half inches from umbilicus on a line drawn from umbilicus to anterior superior spine of right ileum in acute appendicitis.

**Morro's reflex (embrace).** Flexion of all four limbs on sharply tapping the bed on which the baby lies, indicative of serious disorder of cerebral development.

**Mortola's s.** Pain on pinching anterior abdominal wall, severity of pain indicating the degree of abdominal inflammation.

**Morton's toe.** Metatarsalgia usually of 4th metatarsal head.

**Mosaic skin (Lizard skin).** Glazed smooth areas of crackled skin interspersed with lines which divide the surface of the skin in chronic malnutrition.

**Mose's s.** In thrombophlebitis squeezing the calf ms. from side to side may be painful.

**Mosler's s.** Sternal tenderness in acute myeloid leukemia.

**Mousy breath.** Foetor hepaticus in severe hepatocellular disease.

**Muehrcke's s.** Transverse bands across the nails in some with hypoalbuminemia e.g. in cirrhosis.

**Mulberry molars.** Rounded cusps of first molars in congenital syphilis.

**Mulberry rash.** Roseolar macules with fine, irregular dusky mottling (subcuticular mottling) in typhus fever.

**Muller's s.** Pulsation of uvula in AI.

**Murderer's thumb.** Wide, short thumb nail and blunted tip seen in certain endocrinopathies such as acromegaly, may occur in normal people as heritable trait.

**Murphy's piano percussion s.** Absence of ordinary tympanitic sound when lower right abdominal wall is percussed by the four fingers in succession indicates a small amount of exudation in appendicitis.

**Murphy's s.** Tenderness at tip of 9th rib where the lateral edge of rectus abdominis crosses the costal margin in acute cholecystitis.

**Musset's s.** Nodding of the head with each pulse beat in severe AI.

**Music box chest.** Exaggerated number and variety of musical rales heard during an asthmatic attack.

**Myerson's s.** Frequent repeated blinking movements or orbicularis spasm when a quick thrust towards the eye is made with the finger or the bridge of the nose is tapped with a reflex hammer.

**Naunyn's s.** Deep tenderness at the end of full inspiration at the outer limit of right epigastrium and hypochondrium in chronic cholecystitis.

**Negro's s.** (1) See cogwheel rigidity. (2) In facial palsy if patient is asked to look up, the eyeball on the paralysed side deviates outward and goes higher owing to overaction of superior rectus and inferior oblique ms.

**Neri's s.** 1. Knee flexion associated with flexion of trunk in standing position in lesions of upper motor neurone. 2. In neuritis of sciatic n. trunk if patient is made to stand erect and pick up some object at his feet, the knee on the affected side at once becomes flexed.

**Night-nurse's paralysis.** A psychogenic fear reaction closely related to sleep paralysis in which the patient when falling asleep, or more commonly on waking, finds himself completely unable to move a muscle.

**Nikolsky's s.** Demonstrated by drawing the finger with firm pressure over surface of the skin. The epidermis slides off like a piece of wet tissue paper. Though this sign is always present in pemphigus, it may be seen in other bullous diseases.

**Nordentoft's s.** Sometimes in a case of arterial embolism the thrust of the pulse upon the occluded artery may be transmitted some distance along the vessel and this may be mistaken for a genuine pulse.

**Nose rubbing.** A common habit in patients with intracranial tumors.

**Nothangel's s.** Paralysis of facial ms. especially in respect of movements connected with emotions, observed in cases of thalamic tumors.

**Nummular sputum.** Discrete discs in purulent sputum said to indicate lung cavitation.

**Nun's murmur.** Murmur heard in greatly dilated collateral vessels on abdominal wall in cirrhosis (bruit de diable).

**O s.** Slack jaws, lips and cheeks in an unconscious patient indicate that the 5th and 7th nuclei are not functioning.

**Ober's s.** With the patient lying on one side and with the thigh and leg on that side in flexion, the examiner abducts and extends the opposite thigh and then suddenly releases it. Failure of the thigh to drop promptly indicates contraction of tensor fascia lata on that side.

**Obstetrician's hand.** See accoucher's hand.

**Ocular bobbing.** Attacks of intermittent, usually conjugate, brisk, downward eye movements followed by return to primary position in severe destructive caudal pontine lesions.

**Ocular flutter.** Bursts of to and fro rapid movements of the eyes in cerebellar dysfunction.

**Oliver's s.** Tracheal tug in aneurysm of thoracic aorta if aneurysm of arch of aorta becomes adherent to trachea.

**Onion layer anesthesia.** Radicular pattern of anesthesia on head and face in lesions of bulbar trigeminal nucleus or substansia gelatinosa.

**Opening snap.** A short high frequency click or snap due to audible opening of mitral (or tricuspid) valve.

**Opera glass hand.** In rheumatoid arthritis shortening of fingers may occur and skin folds appear; if the distal phalanx is grasped and pulled axially, the overriding phalanges can be extended to normal length.

**Opera glass nose.** Gummatous ulceration of nose may result in collapse of bridge of nose causing the nostrils to point forward.

**Oppenheim's s.** 1. Forceful stroking of smooth surface of tibia from knee to ankle cause extension of great toe in pyramidal lesion. 2. Adduction and flexion of thumb by rubbing external surface of forearm in pyramidal lesion.

**Orange skin appearance.** 1. Oedema of skin of breast which is pitted at the site of hair follicles and sweat glands so that it resembles the rind of an orange, observed in breast cancer. 2. Rigid elastic myxoedematous tissue with contracted, funnel-like ostia of hair follicles in pretibial myxoedema.

**Osler's nodes.** Small, tender, red, slightly raised areas most commonly seen on the pads of the fingers in SBE.

**Ostrich legs.** See stork legs.

**Ota's nevus.** (aberrant mongoloid spot). Pigmented nevus of eyelids, nose, zygomatic and frontal regions, ear lobes, retroauricular region and anterior portion of scalp.

**Owane's s.** Tenderness to touch in the sole of the foot in thrombophlebitis.

**Ox eyes.** With increased intraocular pressure in a child, the pressure is distributed equally in all directions and the sclera and cornea bulge producing buphthalmos.

**Panama ear.** Mycosis of external auditory meatus.

**Paper money skin.** Prominent venules on skin surface and neck resembling coloured fabric threads in paper money in cirrhosis.

**Paradoxical diarrhoea.** Persistent diarrhoea as predominant symptom of Hirschsprung's disease.

**Paradoxical pulse.** Pronounced reduction in pulse volume with inspiration as in constrictive pericarditis.

**Reversed pulsus paradoxus.** 1. Increased pulse amplitude with deep inspiration and diminution with expiration in some cases of tricuspid insufficiency. 2. Inspiratory rise of arterial systolic and diastolic pressures presumably related to respiratory increase in left ventricular output in IHSS and during intermittent positive pressure breathing in presence of L.V. failure.

**Paradoxical pupillary reaction of Byrne.** Dilatation of pupil in response to pain in lower portion of body, usually in opposite lower extremity, a response to sympathetic stimulation.

**Paradoxical respiration.** See pendular breathing.

**Paradoxical split.** Delay of aortic valve closure in LBBB or AS will reverse the order of the two components of the 2nd sound so that splitting is best heard in expiration.

**Parkinsonian s. (Mask).** Impassive, sphinx-like expression of patients suffering from paralysis agitans.

**Parotid duct s.** Reddening of papilla at orifice of Stenson's duct in mumps.

**Parrot beak nose.** Pointed nose in cranio-facial dysostosis.

**Parry's s.** Protrusion of eyeballs in exophthalmic goitre.

**Parrot beak nails (fingers).** Curving of nails in clubbing.

**Parrot tongue.** Small, dry, crusted, shrivelled tongue in typhus or uremia.

**Parrot's nodes.** Prominent bosses of the frontal bones in congenital syphilis.

**Parrot's pseudoparalysis.** An apparent paralysis due to unwillingness to move the limb because of pain due to osteochondritis in congenital syphilis.

**Parquet tongue.** Tesselated white markings of tongue in leukoplakia.

**Pasteur-Rondot s.** (Hepato-jugular reflux). Abdominal pressure over enlarged liver in CCF causes increase in visible engorgement of cervical veins.

**Pastia's s.** Punctate hemorrhages seen commonly in creases at the elbow flexure (also groin and axillary folds) in scarlet fever.

**Pathologist's wart.** See butcher's wart.

**Paul's s.** Feebleness of apex beat with forcible impulse over rest of the heart indicative of pericardial adhesions.

**Paw hand.** See spade hand.

**Peach blossom face.** Pinkness of cheeks with pallor round mouth and nose in scarlet fever.

**Pear shaped pupil.** In ocular onchocerciasis, disintegrating microfilaria may form a false hypopion at the bottom of anterior chamber causing the pupil to be pear shaped.

**Pear shaped skull.** High forehead with flattened occiput in cerebro-hepato-renal syndrome.

**Pear shaped trunk.** Appearance of trunk in constrictive pericarditis due to emaciation and restrictive expansion of chest plus protuberant abdomen.

**Peg leg gait.** With paralysis of foot and ankle flexor ms. the gait lacks spring.

**Pel-Ebstein fever.** Periodic high rises of temperature lasting 1-3 weeks followed by periods of complete remission in Hodgkin's disease.

**Pellagrous glove.** In pellagra the dermatitis and pigmentation on the hands are sharply demarcated from the palms and extend on to the wrist and for a distance up the forearm.

**Pemberton's s.** Signs of compression can be induced in cases of large cervical goitres when patient's arms are raised above the head.

**Pendular knee jerk.** While tapping the quadriceps tendon, the leg takes three or more oscillations and stops gradually, seen in cerebellar lesions and rheumatic chorea.

**Pendulum breathing.** In case of multiple rib fractures inspiratory efforts create a negative intrathoracic pressure and collapse of the injured chest wall, during the expiratory phase of respiration the flexible chest wall moves outwards.

**Pendulum nystagmus.** See see-saw nystagmus.

**Pericardial knock.** Loud 3rd heart sound in constrictive pericarditis.

**Peroneal s.** In tetany tapping the n. where it winds round the fibula causes sharp contraction of peroneal ms. (and the anterior tibial group) resulting in brisk pronation and dorsiflexion of the foot.

**Pfuhl's s.** To distinguish between empyema and subdiaphragmatic abscess. If pus flows out from the aspirating needle faster during

expiration than during inspiration, it is below the diaphragm and vice versa.

**Phalangeal s.** When proximal phalanges of 2nd and 3rd fingers are passively flexed and maximum, an involuntary extensive adduction of thumb proximally takes place. In pyramidal lesions this movement of the thumb is often lost.

**Phalen's s.** Patient is asked to flex both wrists and keep them flexed for one minute. In carpal tunnel syndrome there may be exacerbation of paresthesia in one or both hands.

**Phantom limb.** 1. Thalamic. Inability to locate limb accurately in space. 2. Amputation. After amputation patient may complain of pain which he localises in the removed part.

**Phillipson's reflex.** In partial spinal lesion, stimulation of foot or leg on one side may cause flexion of that extremity with extension response in the other leg.

**Piano playing movements.** Peculiar movements of the fingers in flapping tremors.

**Piano stretch s.** In cervical rib syndrome patient finds difficulty in spreading the fingers and thumb widely.

**Pick's s.** Conjunctival injection limited to exposed portion of eyeball in phlebotomus fever.

**Pig skin.** Oedema of skin of breast in carcinoma.

**Pigeon breast (Keel breast).** Prominent sternum with lateral depression of ribs in rickets.

**Pigeon egg testes.** Orchitis of congenital syphilis producing diffuse fibrosis and atrophy of testes.

**Pigeon toe.** Adduction of toe due to metatarsus adductus, inward tibial torsion or inward femoral torsion.

**Pill-rolling tremor.** In Parkinsonism, movements of the fingers occur at the metacarpo-phalangeal joints and may be combined with movements of the thumb.

**Pin's s.** Sign similar to Bamberger's s. but found only when patient is lying down or seated leaning backwards, disappearing when he bends forward or assumes knee-chest position.

**Pink eye.** Bacterial conjunctivitis.

**Pink puffer.** Patient with cor pulmonale due to emphysema is able, by making an effort to ventilate, to keep his blood gases normal so that he appears pink and cardiac failure does not occur.

**Pistol shot sound.** Booming sound heard over femoral artery synchronous with each pulse through the vessel in AI.

**Pitres's s.** Loss of pain on pressure on testes in tabes dorsalis.

**Plasterer's hands.** In gout the palms of the hands may show white streaks along the creases.

**Plaster of Paris (frozen) pelvis.** Uterus fixed and immovable due to puerperal cellulitis.

**Plastic rigidity.** Smooth resistance to passive movement throughout its range in extrapyramidal involvement.

**Plateau pulse.** In AS after an initial rise the pulse flattens out to a long plateau before it fades away.

**Platysma s. of Babinski.** Failure of platysma to contract on involved side when mouth is opened in facial paralysis.

**"Plucked bird" appearance.** Appearance of premature senility in progeria.

**"Plucked chicken" skin.** The skin hanging in flabby folds or wrinkles in pseudoxanthoma elasticum.

**Plummer's nail.** Separation of distal margin of nail from nail bed, usually in ring finger in thyrotoxicosis.

**Plunging ranula.** Cystic swelling in floor of mouth looking like a frog's belly. It can burrow through the mylohyoid m. and appear in the neck.

**Pocket edition of adults.** Ateleiotic dwarfs.

**Pohl's s.** Transient decrease in hair growth causing a constriction or pencil-pointing of the hair shaft.

**Points of Vegni.** In subphrenic abscess tenderness can be elicited at one or other of three points—anterior phrenic point at tip of 10th rib, posterior phrenic point where edge of erector spinae crosses 11th intercostal space, superior phrenic point between two heads of sternomastoids.

**Poker man.** In myositis ossificans generalisata, a rare condition in which ms. are gradually transformed into bone, usually commencing in ms. of back.

**Poker spine.** In ankylosing spondylitis as the spine fuses it may be held erect.

**Policeman's heel.** Infracalcaneal bursitis due to excessive walking.

**Pomum Adam's s.** See Adam's apple sign.

**Pooling s.** Secretions may collect in the pyriform fossa but they disappear on swallowing; if they do not, the patient is said to have a pooling sign suggestive of obstruction or paralysis of upper oesophagus.

**Pool's s.** In tetany, extension of brachial plexus by forcible abduction of the arm, causes spasm of the hand and arm.

**Pool's ulnar adductor reflex.** Adduction of thumb on stimulating any portion of palm that is innervated by ulnar n. in pyramidal tract involvement.

**Port light nose.** Red nose sometimes seen in chronic alcoholics.

**Port wine stains.** Congenital cutaneous naevi.

**Porter's tip position.** In Erb's paralysis the limb hangs limply by the side, medially rotated, with the forearm pronated.

**Potain's s.** Extension of percussion dullness over arch of aorta in dilatation of aorta from manubrium to 3rd costal cartilage on right side.

**Potato nose.** In rhinophyma the skin of the nose particularly the distal part becomes surmounted with irregular bosses on which sebaceous follicles are easily seen.

**Potter's facies.** Flattened palpebral fissures, prominent epicanthus, flattened nose, micrognathia and low set malformed ears in Potter's disease.

**Pott's puffy tumor.** Circumscribed oedema of scalp associated with extradural abscess.

**Poverty of movement.** In Parkinsonism, apart from tremors, patient may remain quite still in sitting position for several hours.

**Pratt's s.** Distension of the three pretibial veins may be early s. of phlebothrombosis.

**Preacher's hand.** See benediction hand.

**Prehn's s.** Elevation and support of scrotum alleviates pain of epididymo-orchitis, but not of spermatic cord torsion.

**Prevost's s.** Conjugate deviation of head and eyes, the eyes looking away from the paralysed side in hemiplegia.

**Proconsular neck.** See bull neck.

**Profile s.** In clubbing the nail bed is thickened and this is clearly demonstrated by viewing the side of the flexed thumb.

**Proud flesh.** Exuberant granulation tissue around the orifice of a sinus originating in an infected bone.

**Provan's s.** Delayed cooling of exposed leg in phlebothrombosis.

**Psoas s.** 1. Flexion of hip (hip spasm) in lumbar or iliac abscess.  
2. Extension of right hip may cause pain if the psoas m. is in close relation to a retrocaecal or pelvic appendix.

**Pseudo-ptosis.** Incomplete drooping of upper lid in Horner's syndrome.

**Puddle s.** For detecting small amounts of fluid in peritoneal cavity. The patient lies prone for a few minutes, then rises to his hands and feet. While the examiner lightly flicks a finger against one flank, a Bowles stethoscope is moved slowly from the most dependent part of the abdomen to the flank. That part of the ventral abdomen containing the fluid puddle will show loss of vibration as soon as the edge of the fluid is reached.

**Puffin's bill nails.** Parrot beak nails in clubbing.

**Pumis stone iris.** In onchocerciasis a mild iritis occurs which leads subsequently to patchy atrophy of the iris.

**Pupillary unrest.** Normally there is a certain amount of alternate fluctuation in the size of the pupil, when this is present to an extreme degree it is called hippus.

**Purple people.** Occasionally patients on long term therapy with chlorpromazine may have widespread deposit of pigment.

**Purring cat.** Presystolic thrill of mitral stenosis.

**Pursed lip breathing.** Patients with chronic bronchitis or emphysema find it easier to breathe with the lips pursed because the resultant back pressure prevents collapse of alveolar walls.

**Pusepp's reflex.** In extrapyramidal lesion, light stroking of outer foot is followed by slow abduction of the little toe.

**Quant's s.** T-shaped depression in occipital bone sometimes seen in rickets.

**Queckenstedt s. 1.** External. During jugular compression if the external jugular veins do not bulge as they normally should, it is an indication of sinus thrombosis. **2.** See Queckenstedt test.

**Quinke pulse.** Visible pulsatile blushing synchronous with heart beat in small vessels of finger tip pulp and nail bed in AI.

**Quinquad's s.** Tremor felt by the examiner when the patient places his fingers, spread apart, upon the hands of the examiner. This occurs in alcoholism.

**Rachitic rosary.** Beading of the ribs due to enlargement of costochondral junctions in rickets.

**Raccoon eyes.** Bilateral medial orbital ecchymoses suggestive of anterior basal skull fracture.

**Radovisi's s. (Palm chin reflex).** Vigorous scratching or pricking at the thenar eminence causes ipsilateral contraction of ms. of chin in pyramidal tract disease, increased intracranial pressure, latent tetany, etc.

**Raspberry tongue.** Scattered red spots on a grey background on the tongue in early phases of scarlet fever.

**Rag doll baby.** See India rubber baby.

**Rademake's reflex. (Precipitation reflex).** In infants from 6-8 months. The child is held by the trunk and lowered towards the floor face downwards, the arms will extend as if to support the child.

**Railroad tracks.** Scarred veins in heroin addicts due to repeated IV injections.

**Railway nystagmus.** Optiko-kinetic nystagmus when watching a rapidly moving landscape from railway carriage window.

**Raimiste's arm s.** The patient's elbow is placed on the table with forearm and hand held in vertical position by the examiner's hands being placed against it. If the examiner's hand is suddenly removed, the patient's hand if paralysed or paretic, will drop to form an angle of  $130^{\circ}$ - $140^{\circ}$  with the forearm.

**Raimiste's leg s.** If the examiner opposes adduction or abduction of thigh or leg on the normal side, the pyramidally paralysed or paretic leg will carry out a movement identical with that which was forcefully prevented in the other normal leg.

**Raisin tumors.** Pigmented granulomatous pseudotumors at site of skin injury in Ehlers-Danlos syndrome.

**Ram's horn nail.** Overgrowth of nail with thickening and curvature.

**Ramrod spine.** See poker spine.

**Ramson's point of tenderness.** Tenderness between the heads of sternomastoid m. in cholecystic disease.

**Raspberry lesion.** In yaws primary lesion begins as a painless red papule surrounded by a reddish zone.

**Raspberry tongue.** In scarlet fever after desquamation the tongue becomes somewhat swollen and acquires a denuded red appearance.

**Raspberry tumor.** Umbilical adenoma commonly seen in infants due to partial obliterated vitello-intestinal duct with mucosa protruding through the umbilicus.

**Raw beef tongue.** Dry red tongue with most of the papillae atrophied seen in diabetes.

**Raynaud's s.** Acro-asphyxia of upper extremities.

**Red palms.** Bright red colour of palms without apparent cause in Lane's disease.

**Reptilian stare.** Unblinking, immobile, facial expression in Parkinsonism with poverty of eyelid blinking.

**Rhomboid patch of tongue.** Oval or rhomboid, slightly elevated area on the tongue due to failure of fusion of lateral segments of the tongue.

**Rider's bone.** Ossification of adductor longus m.

**Riedel's lobe of liver.** Downward tongue like projection of right lobe of liver.

**Riesman's s.** 1. Bruit heard over the closed eye in exophthalmic goitre. 2. Softening of eyeball in diabetic coma. 3. Sharp pain on striking the right rectus m. with ulnar side of hand while patient holds his breath in gallbladder disease.

**Rifkind's s.** An opaque ring resembling arcus senilis occurring at the edge of the cornea owing to increased levels of fatty acids in blood.

**Riga's aphthae.** Small sublingual ulcerated tumor of infants caused by rubbing of the lower incisors most frequently observed in whooping cough.

**Rising sun s.** Turning down of the eyes in hydrocephalus.

**Robertson's s.** Fullness and tension in the flanks felt by the examiner with patient supine in presence of ascites.

**Rock and roll pulsation.** When the RV is very large, systole causes it to thrust forward close to the left of sternum, at the same time to recede from axillary region, whereas if LV is very large systole may cause it to thrust forward in axilla with visible recession of RV to left of sternum.

**Rocker bottom foot.** Most severe type of flat foot.

**Rogoff's s.** Tenderness over costovertebral angle in Addison's disease. May also occur in genito-urinary disease or injury to transverse process of 1st lumbar vertebra.

**Rollet's chancre.** Chancre produced by mixed syphilitic and chancroidal infections.

**Romana's s.** Painless, unilateral palpebral oedema and conjunctivitis in Chaga's disease, usually in the first febrile week.

**Romberg's s.** Tendency of patient who can stand steadily with eyes open to fall when he closes them in tabes.

**Romberg-Howship s.** Neuralgic pain in leg caused by obturator hernia.

**Rooster's leg.** Appearance of leg due to involvement of lower thigh in peroneal muscular atrophy.

**Rose spots.** Lenticular rose-coloured spots which appear in crops in typhoid fever.

**Rosenbach's s.** 1. Tremor of closed eyelids in throtoxicosis. 2. The skin of abdomen can be pinched or pricked on the paralysed side in hemiplegia without eliciting abdominal reflex. 3. Absence of abdominal reflex in inflammatory disease of intestine.

**Rose's gluteal s.** In sciatic neuritis on percussion of gluteus maximus at its point of attachment to the side of the sacrum, instead of contraction of the whole of the m. there is exaggerated fascicular contraction of its fibres visible subcutaneously.

**Rossolimo's reflex.** Muscle-stretch reflex obtained by tapping the plantar surfaces of the toes with a reflex hammer.

**Rossolimo's s.** 1. Of hand. Flexion of fingers follows either percussion of palmar aspect of metacarpophalangeal joint or tapping

the volar surface of patient's finger tips; a pyramidal tract response.  
 2. Foot s. Elicited by tapping the ball of the foot, percussing the plantar surface of the great toe, tapping or stroking the balls of the toes, or giving a quick lifting snap to the tips of the toes; with pyramidal lesion the toes plantar flex vigorously and immediately.

**Rotatory neck rigidity.** When patient is asked to look to right or left, the eyes are moved axially but the head very little, or very slowly. This is characteristic of paralysis agitans, but may be seen in cervical spondylosis or rheumatic torticollis.

**Rotch's s.** Obliteration of cardio-hepatic angle in 5th intercostal space in pericardial effusion.

**Roth's s.** Percussion dullness between right 5th and 6th costal cartilages in large pericardial effusion (or dilatation of right atrium in tricuspid stenosis).

**Rothschild's s.** Rarefaction of outer third of eyebrows in hypothyroidism.

**Rovighi's s.** Fremitus felt on percussion and palpation of a superficial hydatid of liver.

**Rovsing's s.** In acute appendicitis, pain or tenderness in right lower abdominal quadrant may be induced by pressure on descending colon.

**Rowntree's s.** Prominent pulsation on right side of neck in hypertension.

**Ruby spots.** See Morgan's spots.

**Rust's s.** Of cervical caries. With every change of position and often when patient is seated, he supports his head with his hands.

**Rytand murmur.** (Blubbering murmur). Murmur in ventricular diastole following atrial contraction in elderly subjects. After auricular systole normal mitral leaflets are floated nearly together; in the aged they remain longer and more fixed in this position because of their increased rigidity.

**Sabre shin.** Forward curving of anterior border of tibia due to periosteitis in congenital syphilis, and in rickets.

**Saddleback temperature.** Fever reaching 103-105°F. tending to drop on 4th or 5th day and going up finally to drop and disappear on 7th day: seen in short fevers.

**Saddle anesthesia.** Anesthesia over both buttocks, anus and perineum in cauda equina lesions.

**Saddle nose.** Depressed bridge of nose in congenital syphilis and leprosy.

**Saggeser's s.** Pressure over phrenic n. between heads of sternomastoid m. causes pain in case of splenic rupture.

**Sailor's skin.** Chronic solar dermatitis especially at back of neck or hands.

**Sallam seizures.** (Drop seizures). Akinetic seizures in infants and young children during which the head drops forward as the arms are raised above the head.

**Salmon patch.** Capillary hemangioma of skin commonly on face.

**Salmon patch eye.** In congenital syphilis the cornea gets vascularised forming a small pinkish patch.

**Saluting hand.** Thumb held in permanent flexion due to rupture of extensor pollicis longus tendon.

**Samson's s.** Marked increase in area of dullness in 2nd and 3rd intercostal spaces due to pericardial effusion.

**Sandwith's tongue.** Bald and beefy red tongue in pellagra.

**Sarbo's s.** Pressure over lateral popliteal n. as it winds below the head of fibula fails to produce sensation in tabes dorsalis.

**Sattler's veil.** Corneal oedema with blurring of vision, halos, and development of vesiculation due to oxygen deficiency that may result from wearing contact lenses.

**Saturday night paralysis.** Radial n. palsy in chronic alcoholic from sleeping with an arm hanging over the back of a chair.

**Saucer depression of sternum.** Shallow but wide depression of sternum in pectus excavatum.

**Sausage fingers.** Thick, fleshy fingers in syringo-myelia.

**Sausage toes.** Thickening and reddening of toes, especially halux, sometimes acutely in gout, due to simultaneous involvement of interphalangeal and metacarpophalangeal joints.

**Saw tooth effect.** See cog wheel phenomenon.

**Saw tooth nystagmus.** See jerk nystagmus.

**Sawing murmur.** See cooing dove murmur.

**Scaffer's foot.** Pes cavus.

**Scaphoid (boat-shaped) abdomen.** Abdominal wall presenting a forward concavity or sunken appearance in dehydration or cachexia.

**Scarf s.** In small children with lower motor neurone disease, it is possible to wrap the arm round the neck as if it were a scarf.

**Schafer's s.** 1. Dorsiflexion of toes in pyramidal lesion produced by deep pressure on Achilles tendon. 2. Adduction and flexion of thumb produced by pinching flexors of tendons of wrist, a pyramidal tract response.

**Schepelmann's s.** In dry pleurisy the pain is increased when the patient bends his body toward the uninvolved side, whereas in

intercostal neuralgia it is increased by bending toward the affected side.

**Schlesinger's s.** In tetany flexion of hip with knee extended causes spasm of the leg.

**Schrijver-Bernhard reflex.** Percussion of anterior surface of leg or tapping the skin over tibia, or peroneal or anterior tibial ms. is followed by plantar flexion of toes, a s. of extrapyramidal involvement.

**Schultze's s.** In tetany tapping the protruded tongue produces a transient depression or dimpling at the site of stimulation. A similar phenomenon may be seen in patients with myotonia.

**Scratch s.** In diagnosis of pneumothorax. Elicited by placing the stethoscope at some midline position on chest, either over spine or sternum. At equidistant points from the stethoscope the skin is scratched with a finger or blunt object and the sound from the two areas compared. A positive sign consists of considerably louder and harsher sound on the side of pneumothorax.

**Screw-driver tooth.** Notching of incisor tooth resembling a screw-driver in congenital syphilis.

**Scrotal tongue.** Fissured tongue, a physiological anomaly, but may be seen in Mongolism.

**Seagull murmur.** Harsh screeching murmur resembling call of sea gull due to ruptured chordae, unusual valve deformity, or aberrant bands in ventricular cavity.

**Searching movements.** Slow wandering movements of fingers, best observed when patient lies with his eyes closed and his hand on a flat surface. They are accompanied by flexion of metacarpophalangeal joints so that the palm is drawn away from the surface. As this happens the fingers gradually close, the wrist flexes, and there is internal rotation of the pronated forearm. It is seen in lesions from post-central cortex through brainstem to posterior columns in the cervical segments.

**See-saw murmur.** (Bellows murmur). Systolic and diastolic murmur occurring together as in A1.

**See-saw nystagmus.** Disjunctive pendular nystagmus—as one eye elevates, the other eye depresses, frequently associated with bitemporal field defects in chiasmal lesions.

**See-saw s.** In oculomotor paralysis the affected side shows ptosis and abducted position of the eye. When the patient's healthy eye is closed, the affected eye moves inward and the upper lid upward and the ptosis disappears; when the healthy eye opens, the ptosis reappears.

**Semiheats of Stokes.** In complete heart block atrial sounds may be heard at the apex or along left parasternal border.

**Sentinel (satellite) bubo.** Regional lymphadenitis that develops in association with primary lesion of syphilis.

**Sentinel node.** See Virchow's node.

**Serpent head fingers.** See drumstick fingers.

**Setting sun eyes.** 1. The irises appear to sink beneath the lower lids in hydrocephalus. 2. In choreo-athetosis with neonatal jaundice. When the infant is tipped backward from upright to supine position, the upper eyelids retract while the globes of the eyes rotate downward beneath the lower lids.

**Shagreen patch.** Characteristic skin lesion usually found on the trunk as slightly elevated area of variable size and having an orange peel appearance in tuberous sclerosis.

**Shark skin.** 1. In pellagra in some cases the erythematous skin assumes a dirty brown colour, and becomes rough and scaly. 2. Oil acne folliculitis.

**Shawl scrotum.** Bifid scrotum with the scrotal fold extended vertically around the base of the penis, somewhat resembling a shawl thrown about the neck in Pierre Robin syndrome.

**Sherren's triangle.** A triangle bounded by lines connecting the umbilicus, right pubic spine, and iliac crest.

**Shield like chest.** Broad chest in Turner's syndrome.

**Shifting tenderness.** In mesenteric lymphadenitis. The site of maximum tenderness is located while the patient lies supine, the position is then changed to left lateral, after a few minutes if the s. is positive, the point of maximum tenderness will be found to have moved leftward to, or beyond the midline.

**Shoemaker's s.** See funnel chest.

**Shoulder-pad s.** Presence of massively enlarged shoulders with a rubbery hard consistence and resembling a football player's shoulder pads in amyloid arthropathy.

**Shrew mouth.** (Mouse face). Unduly small lower jaw producing peculiar face.

**Shuffling (festinant) gait.** In Parkinsonism patient walks with quick shuffling steps as if constantly about to fall forward.

**Siebert's s.** In mongolian idocy the little fingers are short and curved inwards.

**Sign de Dance.** In ileocaecal intussusception a sausage-shaped tumor may be felt in upper part of abdomen or left iliac region when the right iliac region feels empty.

**Sign of emptying.** In case of cavernous hemangioma (also lymphangioma and certain meningoceles), the swelling diminishes in size when compressed, and refills gradually when pressure is released.

**Sign of forearm.** Stroking the radial aspect of semiflexed and semi-pronated forearm is followed in normal individuals by further flexion of forearm and radial elevation of hand. In lesions of pyramidal system, there is flexion of forearm without elevation of hand.

**Sign of recession.** In laryngeal obstruction, the lower end of sternum, together with intercostal spaces, supraclavicular fossae and epigastrium is sucked in during inspiration especially in children.

**Sign of the ridge.** In dehydration if the skin is pinched up between finger and thumb and then released instead of it springing back with normal elasticity a ridge is formed that subsides slowly.

**Sign of the vas.** Inflammatory lesion of testis involving the vas deferens causes the vas to be very much thickened, in testicular neoplasms the vas remains normal.

**Silex's s.** Furrows (rhagades) radiating from the mouth in congenital syphilis.

**Silk glove s.** Presence of thickened spermatic cord in infant suggesting patent processus vaginalis.

**Silver fork deformity.** See dinner fork deformity.

**Simian hand.** See ape hand.

**Simian posture.** Forward tilt of the head, dorsal kyphosis, slight flexion of hips and knees, adduction of arms and thighs with forearms slightly flexed and wrists extended, in Parkinsonism.

**Singapore ear** (Telephonist's ear). Irritation and discharge from ear due to fungus infection.

**Singer's nodules.** Small nodules on free borders of one or more vocal cords in chronic laryngitis.

**Sister Joseph's nodule.** Abdominal carcinoma especially gastric may metastasise to the navel.

**Sisto's s.** Persistent cry of infants with congenital syphilis.

**Skew deviation of eyes.** Divergence of eyes, one looking down, the other up; diagnostic of brain stem lesions.

**Skin popping.** Round subcutaneous nodules in heroin addicts due to subcutaneous injections.

**Skoda's s.** Loud P<sub>2</sub>, faint A<sub>2</sub> in mitral stenosis.

**Skodaic resonance.** A hyper-resonant note with a boxy quality heard just above level of pleural effusion.

**Slant eye.** See almond eye.

**Slapping gait.** See steppage gait.

**Slipping-clutch gait.** Gait in which patient has difficulty in initiating a step and it appears as if the feet are almost stuck to the floor.

**Slouched back.** Increased dorsal kyphosis, increased lumbar lordosis and a more horizontal position of the pelvis.

**Smiling umbilicus.** Transversely stretched umbilicus in ascites.

**Smoky urine.** The urine in acute nephritis has the colour of smoked meat (or of coca cola or dilute coffee).

**Snail-track ulcers.** Multiple shallow ulcers on under surface of tongue in secondary syphilis.

**Snout reflex.** The examiner taps the centre of the lips with a reflex hammer. The lips protrude forming a snout. This does not occur in normal individuals except during first year of life. The snout reflex is present in diffuse lesions of the brain such as cerebral arteriosclerosis.

**Snub-nose (Pug-dog nose).** Drawing in of roof of nose in achondroplastic dwarfism.

**Sock feet.** Syndactyly of feet.

**Soderbergh's pressure reflex.** In extrapyramidal involvement when certain bony prominences are firmly stroked, a slow muscular contraction ensues, e.g., if ulna is stroked in a downward direction, there may be flexion of 3 outer fingers, and flexion of thumb if radius is stroked.

**Soot warts.** Warts of scrotum in chimney sweeps.

**Souques' s.** 1. Finger s. The patient is asked to lift both arms; in paresis of pyramidal origin, the fingers of the paretic hand are extended and separated. 2. Leg s. In extrapyramidal disturbances of paralysis agitans type, if patient sitting in a chair is suddenly thrown back by tipping the chair backwards, normally involuntary extension occurs at both knee joints, this associated movement is often missing.

**Speaking stomach.** A harmless but distressing condition in which for minutes or hours at a time the gas liquid interface in the stomach produces a loud gurgling noise with each inspiration.

**Sphinx neck.** See webbed neck.

**Spider bursts.** (Racket bursts). Spread of long-standing venous stasis in subcutaneous network, or into intradermal subcapillary plexuses.

**Spider fingers.** Long and hyperextensible fingers in Marfan's syndrome.

**Spider naevus.** Central arteriole with small radiating vessels found on upper part of body in cirrhosis.

**Spidery handwriting.** In GPI due to tremors.

**Spindle fingers.** Fusiform swelling of joints of fingers in early stages of rheumatoid arthritis.

**Splashing s.** Splashing sound heard on shaking the patient, or making short sudden dipping movements with the hand over the stomach in pyloric stenosis.

**Splinter fingers.** Vertical hemorrhagic streaks under the nails in SBE.

**Spoon nails.** Concave saucer shaped nails in iron deficiency :

**Spooning (dishing) of hands.** In rheumatic chorea when the arms are projected straight forward, the hands tend to assume a posture consisting of flexion of wrists, hyperextension of metacarpo-phalangeal joints, straightening of fingers and abduction of the thumb.

**Spotted leg.** Diabetic dermopathy (pigmented pretibial patches) varying from small pigmented macules to oval pigmented scars.

**Sprengel's deformity (shoulder).** Congenital winging of scapula, with elevation of the shoulder girdle on the affected side.

**Squat neck.** Short thick neck in cretin.

**Spurling's s.** 1. In cervical disc prolapse lateral movement of the head towards the side of prolapse is painful. 2. See Bragard's s.

**Stammering bladder.** Sudden cessation of stream of urine due to spasmodic contraction of vesical sphincter.

**Stairs s.** Difficulty in descending a stairway in locomotive ataxia.

**Stamping gait.** In sensory ataxia patient being unaware of the position of the feet in relation to the ground, lifts them unduly high and then brings them down heavily.

**Steamy cornea.** Cloudy cornea in Hurler's syndrome.

**Step-ladder temperature.** Each evening the temperature rises higher than the previous evening and drops less in the morning till maximum temperature is reached by the end of the first week; seen at times in typhoid fever.

**Steeple skull.** Elongated head with pointed vertex.

**Stellwag's s.** Retraction of upper lid with exposure of a strip of sclera above cornea in thyrotoxicosis.

**Steppage gait (Slapping gait).** In case of foot drop the patient lifts the knee high in order to clear the toes off the ground and when the foot is brought down it is slapped to the ground.

**Sterling's s.** Active adduction of shoulder on normal side against resistance is accompanied by adduction of shoulder on paretic side.

**Sternomastoid s.** Undue prominence of the clavicular head of the sternomastoid m. on one side indicative of tracheal displacement or mediastinal shift to that side.

**Still's murmur.** Humming systolic innocent murmur in the young.

**Stocker's s.** In tuberculous meningitis in the early stages the patient is usually irritable, restless and does not like being examined, drawing up the bedclothes over himself.

**Stocking anesthesia.** See glove anesthesia.

**Stocking feet.** Extensive soft tissue fusion between metatarsals and phalanges of various digits in Apert's syndrome. (See mitten hands).

**Stoke's collar.** Enlargement of circumference of neck due to non-pitting oedema in superior vena cava obstruction.

**Stoker's cramps.** Heat cramp.

**Stone asthma.** (Bronchial colic). Violent symptoms of bronchial irritation from broncholithiasis.

**Stork bites.** See salmon patch.

**Stork (spindle) leg.** In peroneal muscular atrophy, the spread of atrophy to the posterior surface of the legs gives characteristic stork leg appearance.

**Straight leg raising s. 1.** See Lasague's s. 2. With digital pressure over the tender spot in the abdomen, elevation of the right leg may cause pain in retrocaecal appendicitis.

**Stransky reflex.** The little toe is slowly and vigorously abducted, and after the maximum abduction has been maintained for a second or two, it is suddenly released. Dorsiflexion of the great toe may occur while the little toe is being held abducted, or it may take place just after release of abduction.

**Strawberry and cream skin.** Red cheeks on light yellow background in myxoedema.

**Strawberry angioma.** Red mark on face due to strawberry or raspberrylike angioma.

**Strawberry face.** Reddening of nose and cheeks in rosacea.

**Strawberry mark.** Capillary naevus, bright red in colour, usually present at birth.

**Strawberry tongue.** On first day of scarlet fever, the dorsum of tongue is coated with a white fur through which project swollen red papillae.

**Strumpell's s. 1. Pronation s.** Active flexion of a paretic forearm is followed by pronation and flexion of the hand. If the forearm is flexed in supination or is passively flexed and supinated by the examiner, it immediately assumes a position of pronation. 2. *Radiulis* s. Attempts to close the fingers or make a fist on the paretic side are accompanied by dorsiflexion of the wrist. 3. *Tibialis* s. Sharp voluntary flexion of hip and knee is followed by involuntary dorsiflexion and inversion of the paretic foot.

**Student's aneurysm.** In elderly hypertensive females the pulsations of a kinked carotid artery may be mistaken for an aneurysm by students.

**Student's elbow.** Bursitis of elbow in students who read long hours with the head supported by hands and elbows resting on a table.

**Succulent hand of Marinesco.** In syringomyelia the hands are livid, cold and usually wet, the dorsum is swollen, and the fingers are stumpy and swollen.

**Succussion splash** (Hippocratic succussion). Splashing sound heard over the chest on the affected side on shaking the patient in hydro-pneumothorax.

**Sugarloaf head.** See tower skull.

**Surfer's ear.** Mycosis of external auditory canal.

**Surgical joint.** Suppurative arthritis.

**Suzman's s.** Visible or palpable collateral vessels in the interscapular region in coarctation of aorta, best observed when patient bends forward with arms dependent.

**Swan neck.** In dystrophia myotonica, due to atrophy of strenomas-toid ms. there is characteristic appearance of neck with backward tilting of the head.

**Swan neck deformity.** Deformity in later stages of rheumatoid arthritis due to spasm of intrinsic ms. which pull the fingers into position of hyperextension at proximal interphalangeal joints.

**Swimmer's itch.** Urticaria following penetration of skin by bilharzial cerceriae.

**Swimmer's palsy.** Long thoracic n. palsy from friction by scalenus medius as the arm is carried forwards in breast stroke.

**Syphilitic wig (mop).** Excessive hair on head in congenital syphilis.

**Systolic shock.** Pistol shot femoral sound.

**T**abetic facies. In tabes there is drooping of the eyelids and in his effort to lift up the eyelids the patient markedly wrinkles his forehead.

**Tailor's ankle.** Appearance of bursa over lateral malleolus in tailors who work sitting cross-legged.

**Tailor's bottom.** Pain in the sciatic bursa between gluteus maximus and ischial tuberosity—an occupational illness associated with prolonged sitting.

**Tambour sound.** Loud bell-like aortic sound in syphilitic aortitis.

**Tanyol's s.** The umbilicus is displaced downwards in ascites (it is displaced upwards by a pregnant uterus).

**Tap s. (Percussion s.).** Of varicosity of long saphenous vein. With the patient standing the fingers of the left hand are placed just below the saphenous opening. The main bunch of varicosities is tapped once with the right middle finger. If the valves are incompetent an impulse will be felt by the fingers overlying the long saphenous vein above.

**Tapered fingers.** In Raynaud's disease due to ischemia there is atrophy of the terminal pulp giving the fingers a tapering effect.

**Tapir mouth (lip).** In facio-scapulo-humeral dystrophy the lower lip protrudes in a characteristic fashion.

**Tapir nose.** Destruction of nasal septum in espundia produces a characteristic deformity.

**Target hemorrhages.** Hemorrhagic spots with a central dot of pus in bulbar conjunctiva in SBE.

**Television bottom.** Coccydynia resulting from repeated microtrauma such as prolonged sitting on a hard surface.

**Tennis elbow.** Epicondylitis, a painful condition around the lateral side of the elbow.

**Terry's nails.** White nails (leuconychia) in cirrhosis.

**Thalamic hand.** Typical position of hand with outstretched fingers in athetosis.

**Thinker's folds.** Transverse and deeply cut folds in region of base of nose in acromegaly.

**Thomayer's s.** In inflammatory conditions of the peritoneum the mesentery contracts drawing the intestines over to right side. therefore when the patient lies on his back, tympany is elicited on right side and dullness on left. This sign distinguishes between inflammatory and non-inflammatory ascites.

**Thoracic jerk.** Occasionally a large aneurysm of the lower part of descending aorta forces the heart forward during systole.

**Thorborn's s.** See Bradborn's s.

**Thorn's s.** Sclerotic changes (even calcification) of the pupils in patients with long-standing Addison's disease.

**Three months' colic.** Evening colic which affects thriving babies in the first 2 or 3 months after birth probably due to wind becoming localised in a loop of bowel.

**Throckmorton's s.** Extensor plantar produced by percussing over the dorsal aspect of metacarpo-phalangeal joint of the great toe just medial to tendon of extensor hallucis longus m.

**Thumb s.** 1. See Froment's s. of ulnar paralysis. 2. Of Manner's syndrome. The patient makes a fist over an extended thumb. The sign is positive if the thumb extends significantly beyond the ulnar margin of the hand.

**Tinel's s.** 1. Tingling sensation in distribution of the nerve when the n. trunk is percussed at a point where regeneration is taking place. 2. Tingling sensation radiating from wrist into the hand by light percussion over the median n. in carpal tunnel syndrome.

**Tissue paper scar.** Thin scar of healed gumma.

**Tissue paper tongue.** Thinned out tongue due to marked wasting in late stages of progressive bulbar palsy.

**Toad skin.** In vitamin A deficiency, the skin over outside of the arms may be thick and rough.

**Todd's paralysis.** Residual paralysis after an attack of epilepsy.

**Tomato face.** Crimson coloured, plethoric, round appearance in infant born of diabetic mother.

**Tongue s.** 1. More or less complete inability to protrude the tongue and presence of fine tremors when it is protruded in typhus fever. 2. Dimpling of tongue on tapping with a sharp instrument in anæmia.

**Tonometer s.** In carotid-cavernous fistula wide swing of tonometer indicator hand may be present when visible or palpable pulsation is absent.

**Toothpaste stool.** In Hirschsprung's disease the faeces are expressed from the anus like a toothpaste from a tube.

**Touch-me-not reaction.** In psychogenic rheumatism, sometimes by distracting the patient's attention, the 'painful' joint can be examined indirectly. The patient may protest to being hurt by grasping the examiner's hand.

**Tournay's s. (phenomenon).** On extreme conjugate deviation the pupil of the abducting eye may be larger than the pupil of adducting eye, a normal phenomenon.

**Tower skull.** See steeple skull.

**Tracheal slap.** A foreign body in the trachea may occasionally be felt and/or heard over it on motion of the object with respiration.

**Tragus s.** In irritation of vagus n., touching the skin in the area of the external acoustic meatus may provoke cough.

**Trill's s.** See sternomastoid s.

**Trilu-wheel rhythm.** Quadruple rhythm of heart sounds.

**Transverse rille.** Weakness of retraction of angles of mouth with characteristic snarling appearance on smiling in myasthenia gravis.

**Traube's s.** Double sound heard over peripheral arteries in same pathological states as Duroziez' sign but without pressure of the stethoscope.

**Traube's semilunar space.** A semilunar area at the lower border of the left lung over which a drum like note is obtained corresponding to tympany of stomach.

**Trendelenburg gait.** (Hip gait). If abductors of hip are paralysed, the pelvis tilts towards the opposite side; to counteract this the patient has to lean the trunk towards the affected side; this gives the impression of patient lurching towards the affected side.

**Trendelenburg s.** For dislocation of hip. Patient stands on one leg turning his back to the observer. Normally the unsupported buttock rises in dislocation of hip, or gluteal paral.ysis.

**Trepidation s.** Patellar clonus.

**Treseder's s.** Assuming prone position gives relief of pain in appendicitis.

**Trident hand.** Short, thick fingers diverging from the bases like spokes of a wheel in achondroplasia.

**Trigger finger.** Flexion is normal, but re-extension is accompanied by a painful snap; usually involves middle or ring finger.

**Triangular faces.** Shape of face in hydrocephalus, Paget's disease and achondroplasia.

**Tripod s.** In poliomyelitis the patient extends the arms behind his back with hands on bed for support when sitting up.

**Tromner's s.** (Finger flexion reflex). A sign of pyramidal tract response elicited by giving the tips of the three middle fingers a sharp tap so as to cause a sudden passive extension. A positive response is followed by flexion and adduction of thumb and flexion of index finger, and sometimes flexion of the other fingers as well.

**Trosier's node.** See Virchow's node.

**Trousseau's s.** 1. Recurrent venous thrombosis in certain types of carcinoma, especially involving pancreas, stomach or ovary. 2. Tache cerebrale. If a finger nail is drawn with moderate firmness across the patient's skin, the line along which it has passed becomes a bright red colour from dilatation of superficial arteriolar capillaries; seen in meningitis. 3. A s. of tetany consisting of muscular spasm on pressure over large arteries or ns.

**T-square s.** Muscular hypotonia can be recognised by inspection. The patient is made to kneel; the foot on the sound side is seen to be extended owing to tonicity of gastrocnemius, whereas on the affected side it falls into a position at right angles with the leg.

**Tubular vision.** Complete loss of peripheral field of vision with retention of only a small central area, usually a hysterical phenomenon.

**Turban tumor.** A cylindroma which gradually forms an extensive turbanlike swelling extending over the scalp.

**Turner teeth.** Single hypoplastic teeth (usually permanent incisors or first bicusps) due to extension of pulpitis to peripheral tissues.

**Twanging string murmur.** See Still's murmur.

**Typewriter finger.** Finger permanently flexed at proximal interphalangeal joint due to rupture of extensor tendon inserting on the middle finger.

**Uhthoff's s.** Nystagmus in disseminated sclerosis.

**Ulcer face.** Exaggerated nasolabial fold possibly attributable to distaste for milk and antacids.

**Umbilical black eye.** See Cullen's sign.

**Unschuld's s.** Tendency to cramps in calf ms., an early indicator of diabetes mellitus.

**Uremic frost.** In uremia the perspiration over the nose may evaporate to leave a deposit of urea.

**Uria Heep's wet hands.** Hyperhidrosis.

**Useless hand of Openheim.** Impairment of recognition of common objects combined with inco-ordination of finger movements in demyelinating diseases.

**Vacuous smile.** Fixity of facial muscles with mouth constantly agape in Wilson's disease.

**Vagabond's skin.** Deeply pigmented skin particularly in areas that are in contact with infected underclothes in pediculosis corporis.

**Vakil's s.** Lag or slowness of the up-and-down movement of the chest wall with each heart beat (myotonic cardiac impulse) in ventricular aneurysm.

**Valleix's points.** Tender areas over course of affected ns.

**Vascular s. of Narath.** Difficulty in feeling the femoral artery which normally passes over head of femur in congenital dislocation when this bony support is missing.

**Vedder's s.** Slight pressure on ms. of calf causes pain in beriberi.

**Veiled puff of Skoda.** Puffing sound sometimes heard at end of inspiration in small saccular bronchiectasis.

**Vein s.** A bluish cord along midaxillary line formed by the swollen junction of thoracic and superficial epigastric vein in tuberculous bronchial glands.

**Velcro rales.** Dry and leathery rales with cellophane like quality heard most commonly in pulmonary interstitial fibrosis. The sound resembles that produced by tearing apart of matted strips of velcro adhesive found on modern B.P. cuffs.

**Venous Corrigan pulse.** Presystolic giant 'a' wave due to right atrial contraction against increased resistance as in severe pulmonary hypertension or tricuspid stenosis.

**Venous lakes.** Thin walled papules filled with venous blood most frequently on ear and face, sometimes on lip and neck associated with aging.

**Venous stars.** Dilated venules like lattice work signify high pressure in superficial veins or large veins such as vena cava; may be seen on legs during pregnancy.

**Ventricular rock.** A LV rock refers to systolic rise at apex with retraction medial to it. RV rock means systolic rise near or on sternum with lateral retraction on its left.

**Vetch palsy.** Paralysis in lathyrism.

**Victor Horsley's s.** The temperature on the paralysed side is higher in intracranial hemorrhage.

**Villaret's s.** Flexion of the great toe on percussion of Achilles tendon, a sign of lesions of sciatic n. and its branches.

**Violin-shaped chest.** In rickets along with transverse depression of the chest, there is an outward flare of the lower borders of the ribs.

**Virchow's node.** (Sentinel node, signal node). Small fixed node in supraclavicular fossa suggestive of malignancy of stomach, kidney or testis.

**Virile facies.** Plethoric facial skin with acne, and excessive growth of hair in adrenal cortical hyperplasia or tumor.

**Vital ss.** Record of pulse, respiration and temperature.

**Von Basedow's s.** Resistance of eyeball to displacement by pressure in exophthalmic goitre.

**Von Reclinghausen's freckles.** Multiple freckles which may appear on the trunk in neurofibromatosis.

**Von Rosen's s.** See Ortolani's sign.

**Vorner's anemic naevi.** Small sharply outlined anemic patches of skin of apparently normal structure in tuberous sclerosis.

**Wachenheim-Reder s.** Tenderness on rectal palpation in right iliac fossa at ileocaecal region in appendicitis.

**Wadia's s.** Venous sign of cerebral angioma. With patient sitting upright or propped up at an angle of  $45^{\circ}$  looking straight ahead, the neck is completely bared, and pressure is exerted with either the fingertips or radial border of the index finger on either side separately and then both sides simultaneously, low down in the neck, just above the clavicles. In cerebral angioma there is rapid filling and engorgement of the ipsilateral or contralateral external or internal jugular veins.

**Waiter's tip position.** See porter's tip position.

**Wandering liver.** Hepatoptosis.

**Wandering swellings.** Larval lesions—solid, small oedematous tumors which may move slowly from one area to another, in the course of days or weeks in gnathostoma round worm infection.

**Wash-basin s.** An early s. of tabes—patient falls into the basin when washing his face.

**Watch-crystal nail.** As part of clubbed finger, the nail assumes a curvature longitudinally as well as transversely.

**Watch-spring tongue.** See lizard tongue.

**Wartenberg's s.** 1. Oriental prayer sign of median n. paralysis. The patient is asked to hold his hands with his thumb extended in front of his face with palms outward and the tips of index fingers touching; paralysis prevents extension of thumb so its tip cannot reach its mate. 2. Sign of ulnar palsy. Position of abduction assumed by little finger. 3. Reduction or absence of automatic pendulum movements of arms in walking in extrapyramidal lesion. 4. In Parkinsonism, the examiner, whilst distracting the patient by conversation places his right hand under the occiput of the patient, who lies flat in bed. The patient's head is suddenly flicked forward. In all cases except Parkinsonism the head drops at once back on to the pillow. In Parkinsonism the increased tone of the neck muscles causes the head to move slowly back into its original position.

**Washerwoman's fingers.** Fingers in dehydration.

**Wasp-tail deformity.** Deformity due to involvement of abdominal and spinal muscles in progressive muscular dystrophy.

**Water hammer pulse.** (Collapsing pulse, Corrigan pulse). A very large bounding pulse associated with increased stroke volume of left ventricle, wide pulse pressure and decrease in peripheral resistance.

**Water hammer sound.** See pistol shot.

**Water whistle murmur.** In pneumothorax the breath sounds may be amphoric and if an open fistula is present a gurgling sound may be heard.

**Watery conjunctiva.** The tear that never drops in chronic renal failure.

**Watering can perineum.** Multiple fistulae following urethral abscess, the fistulae originate behind a tight stricture and patient passes most of the urine through the various fistulae.

**Watermelon plunk.** Sound on percussion of the skull involved by osteitis fibrosa. Also heard with bone infiltration such as myelomatosis and metastatic carcinoma.

**Waxy flexibility.** Catatonia in which patient is able to maintain immobility without showing signs of fatigue.

**Weather-beaten complexion.** Network of dilated vessels over cheeks, forehead and nose in persons leading an open-air life.

**Weaver's bottom.** Inflammation of bursa overlying ischium in occupations requiring long periods of sitting especially if constant movement of lower extremities adds local friction.

**Webbed fingers.** Syndactyly.

**Webbed neck.** Thick web of skin which extends from behind ears to distal portion of clavicle and to acromial process.

**Weber's s.** Paralysis of oculomotor n. on one side and hemiplegia on other side.

**Weingrow's heel reflex.** Plantar flexion with fanning of toes on tapping the base of heel in pyramidal tract lesion.

**Weir Mitchell's skin.** In incomplete irritative lesion of a nerve the skin may be red, glossy, or perspiring.

**Wenckebach's s.** 1. Lateral instead of antero-posterior expansion of chest during inspiration in acute pericarditis. 2. Undue prominence of neck veins during inspiration in constrictive pericarditis.

**Wernicke's pupillary reaction.** A light directed into the eye from the hemianopic field will give a lesser response than one coming from the intact field when the lesion is in the optic tract.

**Westphal's s.** Absence of knee jerk in tabes.

**Westphal's phrenic point.** Tenderness radiating over precordium when pressure is exerted over 6th cervical transverse process in chronic cholecystitis.

**Westphal's pupillary reaction.** Pupillary contraction on attempts to close the eyes while the examiner holds them open, a variation of the orbicularis reflex.

**Whipcord artery.** Hard and difficult to compress radial artery in hypertension.

**Whistling face.** Microstomia with thin protruding lips in craniocarpotarsal dystrophy.

**White forelock.** In vitiligo the central portion of skin over forehead and a triangular area of hair in midfront portion of scalp show absence of pigmentation.

**White leg.** Painful swollen lower limb due to ileo-femoral thrombophlebitis.

**White sponge naevus.** (white folded stomatitis). A hereditary oral keratotic disorder in which numerous white plaquelike areas appear on the oral mucosa.

**Wickham's striae.** When the surface of a lichen planus papule is examined under a lens it is seen to be a greyish network.

**Widowitz's s.** Sluggish movements of eyeballs and eyelids in diphtheritic paralysis.

**Williams' s.** In some cases of adherent pericardium the pulmonary resonance in 2nd and 3rd left spaces does not descend one space on deep inspiration as it should do normally.

**Williams tracheal resonance.** An area of tympany over 1st or 2nd interspace close to sternum, due to a patch of consolidation or fibrosis interposed between trachea or major bronchus and chest wall.

**Wilson's s.** 1. Absence of naso-palpebral reflex on side of facial palsy of lower motor neurone type. 2. Positive glabellar tap s. in Parkinsonism. 3. Pronator s.

**Wing flapping tremor.** See liver flap.

**Winged scapula.** In paralysis of trapezius m. when the arm is raised to the horizontal, the vertebral border of scapula stands out from the thorax and is said to be winged.

**Winter feet.** Mild dermatitis of plantar surface of feet and toes in children in winter, a manifestation of atopy.

**Winterbottom's s.** Appearance of enlarged posterior cervical lymph nodes in trypanosomiasis.

**Wintrich's s.** Percussion note over an area of chest wall appears clearer and higher pitched with the mouth open than when it is closed; may be due to lung cavity communicating with a bronchus, pneumothorax or mediastinal tumor.

**Witch's marks.** Stroking or rubbing the skin produces wheals (Desmatographism or autographism).

**Witch's milk.** Slight milky secretion from mamma of infant in mastitis.

**Wolfing reflex.** Elicited by lightly touching or tapping the lips, stimulating the palate and consists of sucking, chewing, and swallowing movements. Present in adults with supranuclear pyramidal tract involvement or diffuse brain disease.

**Waltman's s.** Slow retraction of the deep reflexes, especially ankle jerk, in myxoedema.

**Wooden face.** Face expressing neither mood nor emotion and with infrequent blinking in Parkinsonism.

**Worm-eaten skull.** Multiple periosteal gummata.

**Writer's cramp.** Gradual development of inability to write associated with painful local m. spasm, usually regarded as an occupational neurosis.

**Wrist s.** In Marfan's syndrome. The patient grasps his own wrist proximal to the styloid process of radius and tries to encircle it with the thumb and 5th finger without using pressure. Individuals with Marfan's syndrome have no difficulty in overlapping the fingers while most normal people have difficulty in making the fingers touch.

**Wynter's s.** Absence of movements of abdominal respiration in acute peritonitis.

**Yergason's s.** Production of pain on resisted supination of the forearm while the elbow is flexed at  $90^\circ$  in bicipital tenosynovitis.

**Zaufal's s.** Saddle nose of congenital syphilis.

**Zinc shakes.** Acute pulmonary irritation from zinc fumes may cause an illness varying from mild cough to acute pulmonary oedema.

**Z shaped deformity.** Deformity of the thumb in the shape of letter Z in rheumatoid arthritis, the thumb being flexed at wrist joint and hyperextended at the interphalangeal joint.

## NOTES

**Bathing trunk naevi.** Extremely large naevi involving back, thorax and abdomen.

**Blueberry-muffin rash.** Generalised rash with seborrhoeic features in congenital rubella.

**Bohn's nodules.** See Epstein's pearls.

**Bumps.** Erythema nodosum.

**'Hung up' knee jerk.** See pendular knee jerk.

**Naevus of Ito.** Naevus located in delto-trapezius area.

**Ondine's curse s.** Primary alveolar hypoventilation due to failure of central control mechanism of respiration. (It derives its name from a water spirit of German mythology called Ondine who would cause the death of her victims by stopping the respiration).

**Prune belly.** In congenital absence of abdominal musculature. Characteristic feature is wrinkling and creasing of skin of abdomen.

**Question mark posture.** Posture of patient in advanced ankylosing spondylitis.

**Sydney line.** Proximal transverse line of palm extending to ulnar border of the hand.



## 2. OPHTHALMOSCOPIC SIGNS

**Angioid streaks.** Fine or broad, brown, red or grayish wavy bands with tapering ends, situated beneath the retinal vessels, found frequently in association with pseudoxanthoma elasticum, occasionally Paget's disease and sickle cell anemia.

**Asteroid hyalitis.** Many whitish, round, mobile deposits in the vitreous. Though usually asymptomatic and monocular, a diabetic glucose curve is found in majority of patients.

**Banking.** In sclerosis of retinal vessels the veins show some twisting and distension peripheral to the arteriovenous crossing; centrally the vein is straighter and narrower for a short distance and then resumes the normal appearance.

**Becker's s.** Abnormal pulsation of retinal vessels in hyperthyroidism.

**Black sunburst pigmentation.** In hemoglobinopathy.

**Bull's eye macula.** Macular pigmentation with surrounding lighter zone from chloroquine retinopathy.

**Cherry red spot.** In central retinal artery occlusion the retina in the surrounding area becomes white, and because the choroid shows through the thinnest part of the retina, the macular region remains coloured red. Also at times in Tay-Sach's and Niemann-Pick disease.

**Choked disc (Papilloedema).** Swelling of the nerve head, the colour of the disc becomes redder and the contour becomes blurred. May result from increased intracranial pressure, severe arterial hypertension, thrombosis of a central retinal vein, emphysema, polycythemia vera, or hypoparathyroidism.

**Copper wire arteries.** In moderate sclerosis, the retinal arteries are slightly narrowed and the arterial light reflex is less bright, more diffuse and broader than normal, giving the artery the appearance of a copper wire.

**Corkscrew arterioles.** Unduly tortuous retinal vessels in coarctation of aorta.

**Cotton wool exudates.** Soft superficial exudates in hypertension.

**Cupping of optic disc.** Excavation or depression of the disc at the temporal side of the entering vessel may be physiological, due to optic atrophy (shallow saucer-shaped cupping), or due to glaucoma (deeply cupped).

**Cytoid bodies.** White exudates in superficial layers of retina in SLE. Similar lesions may occur in hypertensive retinopathy.

**Drusden bodies.** White or yellow glistening spots in the retina, not associated with any disease.

**Flame shaped hemorrhages.** Superficial streaky hemorrhages in hypertensive retinopathy.

**Fuchs's spot.** A small black spot in fundus in high myopia following a macular hemorrhage.

**Grayish fundus.** Colour of fundus in polycythemia.

**Gunn's s.** Arteriovenous crossing phenomenon may occur as a pale zone of a vein or concealment of the vein on both sides of the crossing artery.

**Hollenhorst bodies (crystals).** Atheromatous yellowish-white glistening plaques seen within the lumen of the arteriole. These are platelet thrombi and may appear in showers throughout the fundus after a fresh carotid occlusion or following a thromboendarterectomy.

**Knapp's streaks.** See angioid streaks.

**Link sausages veins.** Dilated tortuous retinal vessels along with small newly formed vessels in macroglobulinemia.

**Macular star.** Hard exudate with a radial distribution in macular region in severe hypertensive disease, and other conditions associated with retinal oedema.

**Milky retina.** Whitish retina in hyperlipemia retinalis.

**Mutton fat exudates.** Hard exudates with a sharp edge, opaque and yellowish in colour, seen in diabetes.

**Phakomas.** Small, oval or circular greyish-white or faintly yellow nodules, flat or slightly raised, single or multiple, arising in any part of retina in tuberous sclerosis.

**Pipe-stem sheathing.** Loss of transparency of the vessel wall seen as pale whitish parallel lines along the borders of the blood column. If sheathing progresses, the blood column may be completely hidden so that a shorter or longer part of the vessel appears as a solid white strand.

**Roth's spots.** Small hemorrhagic spot in retina sometimes observed in bacterial endocarditis, pernicious anemia and leukemia.

**Rete mirabile.** Minute aneurysms and newformed vessels in pulseless disease.

**Salt and pepper fundus.** 1. Widespread inflammation with consequent extensive fibrosis seen in congenital syphilis. 2. Chorio-retinitis with fine widespread pigmentation over fundus in Neill-Dingwall syndrome, a familial syndrome allied to progeria.

**Siegrist's streaks.** Accumulation of pigment arranged in a line and usually situated in the far peripheral fundus in uremia.

**Salus's s.** See Gunn's s.

**Silver wire arteries.** In advanced sclerosis the arteries are narrow and the axial light reflex is broad, very pale and whitish giving the artery the appearance of silver wire.

**Subhyaloid hemorrhage.** Accumulation of a pool of blood between the retina and hyaloid membrane to form a turned-up half moon with the straight upper side being a fluid level; found in sub-arachnoid hemorrhage.

**Temporal pallor of disc.** In disseminated sclerosis because the fibres of the macula tend to be most damaged, a common sequel is pallor of the optic disc on the temporal side.

**Tigroid (Tasselated) fundus.** Fundus appearance a variant of normal.

**Vitreous veins.** In familial amyloidosis there may be gross and dense globular opacities and cell-like opacities in the anterior vitreous, and dense and wave-like posteriorly resembling glass-wool.



### 3. ELECTROCARDIOGRAPHIC SIGNS

**Accordion-like effect.** (Troilo effect). In bundle branch block, the BBB occurs beyond a critical rate (say below 60/mt. and above 120/mt.).

**Arrow head T waves.** The fully developed inverted T waves in myocardial infarction are pointed and consist of two symmetrical limbs.

**Ashman's phenomenon.** In atrial fibrillation, when a long ventricular cycle is immediately followed by a short cycle, the beat ending the short cycle shows aberrant conduction (almost always through the right bundle).

**Bahnung phenomenon.** A rare variety of supernormal phase in the occurrence of a conduction block in one direction, temporarily relieved by the passage of an impulse in the opposite direction.

**Beaked T waves.** In myocardial damage the ST rises slowly and may be slightly curved; at the very end, it dips suddenly making the last portion of the T inverted.

**Bouvert type paroxysmal tachycardia.** Attacks of paroxysmal tachycardia separated by beats of sinus origin, without presence of occasional extrasystoles.

**Camel-Hump s. of Osborn.** Rounded, rather narrow, 'hump-like' wave (J wave) usually superimposed on the distal limb of the QRS complex in hypothermia.

**Chung's phenomenon.** Aberrant atrial conduction producing changes in P waves in which the configuration changes only after ectopic beats, or atrial parasystole and atrial dissociation.

**Claw depression of ST segment.** An early depression affecting the returning limb of the S wave.

**Concertina effect.** Beat to beat variation in QRS aberrancy due to gradual variation in the delta waves in WPW syndrome.

**Coved ST segment.** Bowed upward contour of elevated ST segment in acute myocardial infarction.

**Delta wave.** Slurred and thickened proximal limb of QRS complex in WPW syndrome.

**Dome and dart P waves.** In left atrial rhythm the P wave configuration in lead V<sub>1</sub> is characterised by a notched upright P wave with an initial round and low voltage component, followed by a tall and peaked component.

**Dome and dart T waves.** Seen in lead V<sub>1</sub> in left-to-right shunts.

**Dressler's beats.** Fusion beats between supraventricular and ventricular beats.

**Eiffel tower appearance of QRS complex.** In WPW syndrome those QRS complexes which are positive have a notch low down on the upstroke of the R wave (delta wave), and those which are negative have a slur on downstroke of QS or QR. The slurred upstroke gives Eiffel tower appearance to the QRS complex.

**Escape beats.** Spontaneous discharge, of impulses from a lower subsidiary pacemaker (in atria, AV node or ventricles), the lower pacemaker as it were escapes from the influence of the faster pacemaker (SA node).

**Gallavardin's type paroxysmal tachycardia.** Repetitive tachycardia with short paroxysms separated by few sinus beats and extrasystoles.

**Giant T wave inversion.** When heart rhythm is complicated by ventricular asystole, or paroxysmal ventricular flutter, or fibrillation giving rise to syncopal attacks, the ECG often shows very large broad inverted T waves, this is almost pathognomonic of a recent syncopal attack.

**Group beating.** Premature beats occurring regularly every second, third or fourth beats.

**Hay type block.** See Mobitz type II block.

**Hockey-stick pattern.** See 'Reversed tick' pattern of ST.

**Katz-Wachtel sign.** Large diphasic QRS complexes in leads,  $V_2$ ,  $V_3$ ,  $V_4$  and in limb leads, a sign of biventricular enlargement.

**Lown-Ganong-Levine syndrome.** Short PR without QRS widening, associated with paroxysmal tachycardia.

**M-shaped complexes.** Broad notched QRS complexes in bundle branch block.

**Masquerading bundle branch block.** A pattern of RBBB in precordial leads which presents as a pattern of LBBB in frontal plane leads.

**Master's exercise test.** Exercise test carried out when etiology of chest pain in doubtful and resting cardiograms are normal. A positive test consists of depression of ST segments in horizontal or downwardly sagging direction of more than 1 mm in any lead.

**Mirror image dextrocardia.** True dextrocardia with situs inversus of P and T waves, and QRS shows rs or rsr' pattern in lead I resembling a mirror image of the normal pattern in this lead.

**Mobitz type I block.** See Wenckebach phenomenon.

**Mobitz type II block.** Intermittent type of second degree heart block in which the PR interval is constant but QRS complexes are dropped out intermittently.

**Osborne waves.** Elevation of the J segment in hypothermia.

**Pardee sign.** Upward bowing of ST segment in early stages of myocardial infarction.

**Picket fence F-waves.** See saw-tooth F-waves.

**Plane depression of ST.** A linear depression of distal portion of ST segment forming a sharp angle with the ascending limb of the T wave.

**Poorman's exercise test.** Extrasystole with post-extrasystolic T wave change, the T wave of the sinus beat following the premature beat is distorted. Since this is evidence of abnormality, it obviates the need for further (more expensive) exercise test.

**R on T phenomenon.** A ventricular extrasystole with marked prematurity is superimposed on the apex or distal limb of the preceding T wave. Such extrasystoles occurring during the vulnerable phase of the recovering myocardium are prone to precipitate ventricular fibrillation

**Reciprocal beats.** The impulse spreads from the node to the ventricles and upto the atria (as in nodal rhythm), but as it reaches the node it turns around and re-enters the ventricles causing a secondary ventricular contraction (return extrasystole). ECG shows two QRS complexes of different shapes separated by a nodal P wave.

**'Reversed tick' pattern of ST.** In digitalis toxicity ST segment shows a gradual downward slope with a sharp terminal rise, the mirror image of a correction mark or tick.

**Roesler-Dressler cardiac infarction.** In through and through septal involvement, ECG shows evidence of antero-septal involvement in chest leads, while limb leads give appearance of diaphragmatic infarction.

**Rule of bigeminy.** Ventricular extrasystoles tend to follow long R-R intervals. This phenomenon is best seen during irregular rhythms such as marked sinus arrhythmia or atrial fibrillation. The compensatory pause of the extrasystole in turn, constitutes another long R-R interval which tends to precipitate further extrasystole. This process is thus self-perpetuating resulting in bigeminal rhythm.

**Saddle back appearance of ST.** In acute pericarditis the ST segment is elevated but retains its concavity.

**Saw-tooth F waves.** In atrial flutter the normal P waves are replaced by uniform regular oscillations called F waves.

**Sickle-shaped ST depression.** Small dip after start of ST segment may be seen in coronary insufficiency.

**Sickle-shaped elevation ST.** Elevation in acute pericarditis, may be normal.

**Sine curve pattern.** In very severe hyperkalemia eventually the QRS complex is replaced by a smooth biphasic curve (mistaken for ventricular fibrillation or tachycardia).

**Skipped F waves.** In atrial flutter. See skipped P waves.

**Skipped P waves.** The P wave immediately preceding the QRS complex does not necessarily represent the conducted impulse giving rise to the QRS complex. It may be the second P wave, the next but one before the QRS complex that represents the conducted sinus impulse.

**Staircase phenomenon.** (Treppe phenomenon). When a pacemaking cell assumes control of the heart, it may take sometime to 'warm up' and the first few cycles may therefore be slower than those of the established rhythm.

**Step-ladder P waves.** Peculiar shape of P wave like step-ladder seen at times in chronic constrictive pericarditis.

**T-P phenomenon.** A delayed T wave is closely followed by the succeeding P wave, or the P wave may even be on the downstroke of the T wave. This may occur in alkalosis, alcoholic cardiomyopathy, and first degree A-V block.

**Trough depression of ST.** Depression of middle portion of ST in myocardial ischemia.

**Wedensky phenomenon.** Unexpected occurrence of a conducted sinus beat immediately following an A-V nodal or ventricular escape beat in high degree A-V block. Following antegrade A-V conduction, two or more conducted beats may occur consecutively and this is attributed to Wedensky effect.

**Wolff-Parkinson-White syndrome** (Pre-excitation). Short P-R interval of not more than 0.11 seconds with a slurred upstroke, or delta wave, initiating a wide QRS of 0.11 seconds or longer. These changes may be constant, intermittent or even alternating.





## 4. RADIOLOGICAL SIGNS

**Accordion pleating.** See coiled spring appearance.

**Acute rib angle s.** Anterior portions of ribs are drawn downward and inward by concave sternum in pectus excavatum.

**Air bronchogram s.** Visible bronchial tree projecting an air shadow within areas of pulmonary consolidation. Also seen in chronic bronchitis, bronchiectasis and pulmonary oedema.

**Air dome (football) s.** With large amount of free air in the abdomen, the flank shadows bulging outwards stand out as greater in density than the intraperitoneal contents.

**Antler pattern.** If in mitral stenosis the mean pulmonary pressure rises to 20 mm. Hg; the superior pulmonary veins and arteries become prominent and the inferior pulmonary veins and arteries become constricted. This asymmetry between the superior and inferior pulmonary veins causes the so-called 'antler pattern'.

**Armoured heart.** Calcified pericardium.

**Bald fundus.** Absence of folds on greater curvature and fundus of stomach in atrophic gastritis.

**Ball and socket knee (Cupped appearance).** In achondroplasia at the distal end of femur and proximal end of tibia, the epiphyseal centres are partly buried in the shaft owing to marginal overgrowth of the end of the shaft around them.

**Ballooning of frontal sinuses.** Increase in size and depth of frontal sinuses in acromegaly.

**Bamboo spine.** Marked calcification of paraspinous ligaments in rheumatoid spondylitis.

**Barium soaked sponge pattern.** Linear streaks produced by barium lodged inbetween the fronds in villous oedema.

**Barret's ulcer.** Benign discrete ulcer of lower oesophagus.

**Basket work (Stretched net) pattern of bone.** Multiple tiny cigar-shaped holes 2-5 mm long scattered lengthwise throughout the cortex in hyperparathyroidism.

**Batwing appearance.** In advanced pulmonary oedema fluid fills the alveolar spaces in the central area of the chest.

**Batwing pneumomediastinum.** In pneumomediastinum in infancy the most important radiological appearance is the displacement of thymic lobes so as to produce typical 'butterfly' appearance. As the air is gradually absorbed the thymus gradually returns to its normal position.

**Beaten silver appearance.** (Digital impression of skull, pounded brass or beaten copper appearance). Areas on the skull which resemble marks made by the fingers in putty due to erosion of inner table of skull by convolutions of the brain due to raised intracranial pressure. Also due to early fusion of vault bones in hypophosphatasia.

**Beaded oesophagus.** See corkscrew oesophagus.

**Beagle ear s.** Pseudodiverticular deformity occurring after Heineke-Mikulicz pyloroplasty with a slight constriction of both its antral and duodenal sides.

**Bell-shaped chest.** Normal shape of chest prior to expansion of lungs at first or second breath seen in stillborn infant.

**Berry-like opacities.** Termination of peripheral bronchioles in small circular opacities in bronchiectasis, these represent collection of contrast medium in centrilobular emphysematous spaces.

**Bird beak appearance.** 1. In achalasia failure of normal lower sphincter opening produces a persistent V configuration of the head of the barium column above the sphincter; the point of V elongates (birdbeak) as barium wedges into the sphincter and squirts into the stomach. 2. In volvulus of caecum during barium enema, the contrast medium is held up at the stenosis.

**Bird of prey appearance.** In volvulus the lumen tapers towards the stenosis and the tapered end is compared to the beak, and the rectal ampulla corresponds to the body of the bird.

**Bladder ears.** Transitory herniation of bladder into inguinal canal seen in normal infants when bladder is incompletely emptied.

**Block vertebra.** Congenital fusion of one or more vertebra.

**Blush (angiographic).** In meningioma there is prominent vasculature of the tumor.

**Boot-shaped heart.** In enlargement of LV the apex becomes displaced to left and also downwards and backwards. In PA view the left lower border of heart extends more to left and upper part of LV curve becomes more horizontal.

**Brain stones.** Intracerebral nodular calcification in tuberous sclerosis.

**Bridged sella.** Calcification and ossification of interclinoid dural ligaments.

**Brown tumors.** Medullary cyst like areas in hyperparathyroidism.

**Brush effect.** (Spiculation, rose thorns). Tapered, sharpened appearance of duodenal folds along inner border in pancreatic cancer; may be seen also in pancreatitis.

**Budha stance (or attitude).** Foetus in oriental squatting position due to marked abdominal distension (ascites) in hydrops foetalis.

**Bull's angle.** In basilar impression the plane of the axis relative to the hard palate is a guide. Normally these are roughly parallel, in basilar impression they form an acute angle.

**Bull's eye pattern.** 1. Idiopathic focal calcifications in paravertebral ligaments of ventral segments of intervertebral discs of cervical spine in a peculiar bull's eye pattern. 2. Sizable ulcer craters surrounded by equal rim of neoplasm giving the appearance of a target in metastatic neoplasm of small bowel.

**Butterfly appearance of lungs.** In pneumoconiosis areas of massive fibrosis on both sides with linear shadows radiating out from it.

**Butterfly vertebra.** Partial cleft of vertebra in midsagittal plane dividing the body into two lateral halves due to persistence of foetal notochord remnant.

**Cannon-ball appearance.** Widely disseminated well-demarcated 1-2 cm. circular shadows throughout the lungs characteristic of secondary deposits.

**Canoe paddles ribs.** In Morquio's disease the vertebral ends are narrow while the remainder of the ribs are broad.

**Cap of Zin.** Dilatation of main trunk of pulmonary artery in PDA.

**Cascade stomach.** (Cup and spill stomach). Formation of large pocket which fills as soon as barium is swallowed but which does not empty until the level has risen high enough for the barium to spill or cascade into the body of the stomach. As a congenital anomaly it occurs usually in persons of hypersthenic habitus. As an acquired deformity it may be caused by external pressure upward against the greater curvature by a distended colon, enlarged pancreas, perigastric adhesions or retroperitoneal tumors.

**Case's pad s.** Enlargement extending from body of pancreas impresses itself upon the region of pyloric antrum.

**Cat bite.** Areas of erosion and decalcification at upper part of shaft, especially at upper and inner aspects of the tibiae, in congenital syphilis.

**Candle guttering.** Numerous small nodules seen projecting into the ventricular cavity on pneumography in tuberous sclerosis.

**Cathartic colon.** In patient who has used irritant cathartics for prolonged periods, a radiographic appearance of colon quite suggestive of ulcerative colitis with changes most marked on right side and caecum.

**Comma s.** Rounded appearance of barium-filled intraluminal duodenal diverticulum.

**Cauliflower appearance of phalanges.** Tufting of tips of phalanges in acromegaly.

**Cauliflower-like pattern.** Nodular polypoid patterns of submucoid cysts in colitis cystica profunda.

**Caveman club appearance of ribs.** Marked narrowness of heads and necks of the ribs by comparison with the more distal portions of the ribs near the costochondral junction in lipochondrodystrophy.

**Chamberlain's line.** Line drawn between posterior margin of hard palate and posterior rim of foramen magnum in a lateral X-ray of skull and cervical spine. In most normal individuals the upper edge of odontoid process lies below the line.

**Chilaiditis's s.** Interposition of loop of bowel between liver and diaphragm may be seen in pneumatosis of small bowel.

**Clavicle s.** Resorption of acromial end of clavicle in hyperparathyroidism.

**Cloaking.** Widespread, usually bilateral, thickening of long bones in congenital syphilis.

**Club-like enlargement.** In depressed type of gastric carcinoma, converging folds often surround the depressed area and are usually separated from each other, ending at the edge of the depression in a club-like enlargement.

**Club-shaped bone.** Calcification of subperiosteal hemorrhage in the humerus in scurvy.

**Cobblestone pattern.** 1. *Of colon.* Pseudopolypoid changes in granulomatous colitis. 2. *Of duodenum.* Hyperplasia of Brunner's glands produce coarsely polypoid configuration. 3. *Of lower ileum* (a) Mucous contours of terminal segment of ileum may present multiple rounded defects, more commonly in children. (b) Effect produced by marked ulceration of intestinal mucosa in Crohn's disease. 4. *Of oesophagus.* In infection with candida albicans. 5. *Of stomach.* Rugal appearance in gastritis with infiltration, or on occasion polyposis of stomach.

**Cobrahead deformity** (or appearance). 1. In ureterocoele pycelogram shows a localised dilatation of the ureter above the ureterocoele, and a halo is seen round the dilated ureter. 2. Smooth, elliptical dilatation of bowel proximal to the stenosis in ulceration due to ingestion of potassium tablets.

**Cob-web like pattern.** Lacy small bowel pattern due to rapid passage of barium through the bowel leaving behind a thin film of contrast material to outline valvulae conniventes in Zollinger-Ellison syndrome.

**Codfish vertebrae.** Softened vertebrae show concave juxtaposing surfaces induced by pressure of intervertebral discs in osteomalacia.

**Coffee-beans.** In strangulation-obstruction, gas and fluid are seen accumulated in the proximal loops and also within the strangulated loop. The dense line between the lumina reminds one of the crease of a coffee bean and corresponds to the double wall of the loop lying together.

**Coffee pot deformity of stomach.** Gastric ulcers of very long standing can cause scarring with shortening of the lesser curvature of the stomach longitudinally.

**Ground glass appearance.** 1. *Of duodenal mucosa.* Hemorrhage limited to the submucosa elevates, widens and fixes the mucosal

folks. 2. *In intussusception*. A filling defect in the head of the barium column which frequently presents a curled, linear spiral pattern. 3. *Of small intestine*. When more proximal portions of small intestine become distended, the valvulae conniventes assume a coiled spring appearance.

**Coin lesions.** Solitary pulmonary nodules less than 6 cm. in diameter.

**Collar-button ulcer.** Undermining below the mucosa in case of some gastric ulcers.

**Colon cut off s.** Absence of gas in transverse colon which is thus cut off from the gas filled hepatic and splenic flexures in acute pancreatitis.

**Comma shaped hilar shadow.** Tapering hilar shadow occasionally seen in pulmonary embolism.

**Cone-shaped epiphysis.** Epiphyseal centre partially or completely buried in metaphysis usually in shape of a cone in cleidocranial dysostosis, achondroplasia, osteopetrosis, etc.

**Corkscrew oesophagus.** (Presbyopic oesophagus, curling). Elongation of oesophagus without dilatation seen in elderly patients, may be observed in obstructive and spastic conditions.

**Corkscrew vessels.** Tortuosity of hepatic artery due to collapse, contraction and scarring in cirrhosis.

**Corner s. of scurvy.** Small area of rarefaction involving cortex and spongiosa just proximal to the metaphysis on one or both sides of the shaft, an early s. of scurvy.

**Cottage loaf shape** (Figure of 8 or snowman appearance). Pathognomonic cardiac silhouette formed by persistent left superior vena cava, together with left innominate vein and right superior vena cava.

**Couer en sabot.** In Fallot's tetralogy clog shape of heart because LV shows a prominent toe being uplifted clear of the diaphragm by the hypertrophied RV. Also pulmonary bay owing to hypoplastic pulmonary artery.

**Crescent s.** (Meniscus, or double arch, or moon s.). In echinococcus, rupture may occur between precyst and exocyst, permitting air to enter between these layers, thus presenting an appearance of crescent of air around the periphery of the cyst.

**Cucumber shape oesophagus.** Dilated oesophagus with tapering end on barium swallow in achalasia cardia.

**Digital impression of skull.** See beaten silver appearance.

**Dirty chest.** Accentuation of linear markings throughout the lungs in chronic bronchitis.

**Dog nose (anvil tip) deformity.** Large unilateral herniated disc at lumbosacral joint.

**Dog's ears.** In patients with intraperitoneal bleeding, blood displaces the small bowel and sigmoid upward. The gas and fluid-filled loops of bowel are replaced by a homogenous density extending into the lateral recesses and rectovesical pouch, and the resemblance to the projecting ears of a dog is suggested, the bladder constituting the dog's face.

**Dome s.** With gastric rupture a large amount of fluid and gas enter the peritoneal cavity; in the supine position a pocket of air overlying the fluid is seen.

**Double-contour duodenum.** In carcinoma of head of pancreas, a mass affecting only one wall will allow the opposite wall to distend producing a double contour.

**'Double bubble' appearance.** Two gas bubbles seen on plain x-ray of abdomen, one in stomach and the other in duodenal bulb, in infants with duodenal atresia; the rest of the abdomen is devoid of gas shadows.

**Double floor pituitary fossa.** In a case of expanding intrasellar pituitary tumor, depression of central portion of the fossa may produce a double floor appearance.

**Drop heart.** (strap-like heart). See ribbon heart.

**Drumhead diaphragm.** Elevation of antero-medial portion of diaphragm, usually on right side, a variation of normal.

**Dumb-bell stomach.** In syphilitic hour-glass stomach there is a smooth canal which unites pouches of equal size.

**Dripping of molten wax alongside a burning candle.** In melorheostosis there are long broad streaks of calcific density (hyperostosis) extending lengthwise along the affected bones.

**Esign of coarctation.** (Reversed 3 s.). Seen in barium filled oesophagus due to dilated aorta proximal to the coarctation, the coarctation itself, and the post-stenotic dilatation beyond the coarctation.

**Egg-on-side contour.** Ovoid cardiac silhouette in complete transposition of the great vessels. Since the vascular pedicle is narrow, it is labelled as egg-on-string contour.

**Egg shell nodes.** Hilar nodes surrounded by thin shell of calcification resembling faintly the shell of a bird's egg in silicosis.

**Eleischer's lines.** Horizontal plate-like linear shadows usually at lung bases due to segmental atelectasis.

**Empty sella.** On pneumoencephalography the air in the chiasmatic and interpeduncular spaces appears to extend deep into the sella. Seen after pituitary irradiation or necrosis of pituitary tumor.

**Emphysematous cholecystitis.** Gas within wall of gall bladder and usually within lumen as well.

**Epsilon s.** (Inverted or reverse 3 s.). In carcinoma of head of pancreas, the ampulla region of duodenum may show this sign which results from the tumor projecting into the duodenum above and below the site of the ampulla.

**Eraserophagia.** Dense opaque particulate appearance in colon from ingestion of abrasive ink or pencil eraser fragments.

**Erlmeyer flask appearance.** Expansion of long bones with cortical thinning particularly of lower end of femur in Gaucher's disease.

**Falciform ligament s.** In gastric rupture, a thin white line extending vertically in the upper abdomen is produced by gas surrounding the falciform ligament.

**Finger print appearance.** (i) *Of skull.* See beaten silver appearance. (ii) *Of stomach.* Due to widened rugae in lymphoma.

**Fish vertebra.** See cod fish vertebra.

**Fish-mouth-like vertebra.** In Cushing's syndrome there is demineralisation of dorsal lumbar vertebrae. As a result the intervertebral discs may become relatively firmer than the decalcified vertebrae so that the disc may compress the superior, and inferior borders of the vertebrae thereby producing fish mouth appearance of adjacent vertebrae.

**Fluffy (compound) calcaneal spurs.** Seen in ankylosing spondylitis. Also in Reiter's disease, and psoriatic arthritis.

**Fraenkel's s.** (Peristaltic jump). Interruption of the peristaltic wave on the lesser curve by the ulcerated area in gastric ulcer.

**Fronto-polar s.** When the anterior cerebral artery is displaced by a space occupying lesion situated so far back that it does not influence the fronto-polar artery, this artery may exert a pull on the displaced anterior cerebral artery towards the midline causing a characteristic angular course of the displaced artery.

**Frostberg's inverted 3 s.** See Epsilon s.

**Frothing champagne-glass appearance.** In rickets the wrists show cupping and expansion of lower ends of radius and ulna with a feathery, indeterminate margin.

**Fungus ball appearance.** Smooth dense lesions in Aspergillosis.

**Geographic (maplike) skull.** Punched out lesions which perforate inner and outer tables (osteolytic xanthomatous lesions) in lipoid granulomatosis.

**Gloved (or clubbed) finger appearance.** Tubular shadows with enlarged peripheral ends if dilated bronchi contain air in bronchiectasis.

**Gohn's focus.** Solitary calcified pulmonary focus or discrete circular opacity, situated usually in a lower lobe and close to the surface—essential feature of primary complex.

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**Hilus bifurcation s.** To differentiate hilar mass from vascular structures in cases of hilar enlargement. If vessels are seen to arise directly from the hilar shadow, the enlargement is vascular; if they arise medial to the lateral aspect of the hilar shadow, the enlargement is caused by an extravascular mass.

**Hilus overlay s.** To differentiate true cardiomegaly from large anterior mediastinal masses which mimic cardiac enlargement. In presence of anterior mediastinal mass, the hilum is projected medial to the lateral borders of the mass, in cardiomegaly the hilum is displaced laterally.

**Hockey stick (banana) shadow.** In HOCM the configuration of LV on angiogram is likened to a hockey stick or banana.

**Honey-comb lung.** 1. Interlacing of fine diffuse shadows producing appearance of sponge net work in some forms of pneumoconiosis. 2. Multiple small cysts or cavities involving a portion of lung or entire lung as in tuberculosis or mycotic disease.

**Honey-comb skull.** (Moth eaten appearance). In renal rickets due to unusual osteoporosis.

**Hooked (spurred) appearance of vertebra.** Beaking of 1st and 2nd lumbar vertebra in gargoylism.

**Hose-pipe colon.** See pipe-stem colon.

**Hot-cross bun skull.** In rickets excessive amounts of osteoid bone are laid down, particularly in frontal and parietal regions, producing large bosses in these areas; during treatment these become densely calcified.

**Hour-glass chest.** Appearance resulting from paralysis of chest musculature, or multiple rib fractures.

**Hour-glass gall bladder.** Hyperplastic area of adenomyomatosis in middle of gall bladder.

**Hour-glass stomach.** Division of stomach into two parts by narrow zone of ulceration and scarring in chronic gastric ulcer.

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**I** **Inner bent tube appearance of colonic shadows.** In volvulus of the sigmoid colon, plain x-ray abdomen in standing position may show three dense curved lines going downward and converging towards the stenosis, a small tumor-like density that corresponds to the twisted mesenteric root. The middle line or crease is the most constant density and is produced by two walls of the loops lying together.

**Inverted 3 s.** See Epsilon s.

**Inverted Napoleon hat s.** In spondylolisthesis on AP x-ray there is complete forward displacement of the affected vertebral body (usually 5th lumbar), the posterior element of the vertebra (spinous process and lamina) remaining in normal position.

**Ivory bones.** See marble bones.

**Golf ball metastasis.** See cannon ball metastasis.

**Ground glass appearance.** 1. *Of skull.* General demineralisation of bone with bone resorption in hyperparathyroidism. 2. *Of long bones.* In early stages of scurvy the trabeculae in the shaft cannot be seen. 3. *Of lungs.* Relatively homogenous clouding or haze over lung fields in early stages of asbestosis or berylliosis.

**Hair on end (brush) appearance.** Of skull in hereditary spherocytosis the diploic trabeculae assume a position perpendicular to the inner table.

**Hair pin turn.** In small intestinal obstruction, visible loops of bowel often have a sharp bend.

**H. bomb s.** Hypotonic stomach in atrophic gastritis.

**Halo s.** 1. *Of foetal death.* Due to separation of subcutaneous fat in scalp from overlying bone of foetal cranial vault. 2. *Of pneumomediastinum* with pneumopericardium due to air around the edge of the heart on one or both sides.

**Hammered brass appearance.** In craniostenosis due to greater growth of the brain than the skull the convolutional markings may become accentuated and there is corresponding thinning of inner table of skull. See also beaten silver appearance.

**Hampton's hump.** Homogenous wedge shaped consolidation in periphery of lung with its base contiguous to a visceral pleural surface and its rounded convex apex directed toward the hilum.

**Hampton's line.** Thin radiolucent line visible at the base of the ulcer, probably the most reliable radiological sign of a benign gastric ulcer.

**Harris's lines.** Multiple thin lines seen above and below the knee joints in chronic osteomalacia.

**Hatchet effect.** In shoulder dislocation. Resemblance of humeral head to cutting edge of a battle axe.

**Haudée's niche.** Budlike prominence seen in peptic ulcer.

**Herring bone appearance.** Two loops of distended small intestine, when contiguous with one another, present this appearance.

**Hefke's string s.** In hypertrophic pyloric stenosis the stenosed pyloric canal casts a shadow which is funnel-shaped at the entrance, and long and narrow through the lumen.

**Hilar clouding.** Early sign of heart failure. The intervals between the finger-like projections of pulmonary vessels, which fan out from the hilum, become webbed on account of congestion.

**Hilar dance.** Pulsations of pulmonary artery on fluoroscopy most prominent in ASD.

**Hilar flare.** Diffuse homogenous opacity extending from hilum towards periphery of lung in a triangular form in epituberculosis.

**Hilar speckling (or mottling).** Enlarged bronchial arteries in pulmonary atresia or tetralogy of Fallot.

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**J-shaped sella.** Deepening of chiasmal groove, caused by extension of an optic glioma into optic chiasm, may cause the floor of the elongated groove to become nearly continuous with the floor of the sella. This elongated cavity resembles the letter J lying on its side.

**Jack-knife stomach.** A further development of cascade stomach in which acute kinking has taken place, the angle pointing upwards and forwards.

**Joint mice.** Osteocartilaginous loose bodies in a joint, such as knee joint, visible on x-rays.

**Kantor's string s.** A thin, irregular, linear shadow running from the last filled loop of ileum through the filling defect to ileocaecal valve in Crohn's disease.

**Kerley's A lines.** Thick long linear shadows from pulmonary oedema.

**Kerley's B lines.** Fine, horizontal lines seen near the costophrenic angles, represent dilated channels, more common than A lines and seen in conditions associated with a persistent high venous pressure as in mitral disease.

**Kissing spines.** Lumbar lordosis results in approximation of spinous processes (with pseudoarthrosis interspinalis).

**Kissing ulcers.** Multiple duodenal ulcers situated on both anterior and posterior walls.

**Klemm's air cushion.** Local tympany in right lower quadrant corresponding to the gaseous distension of caecum and ascending colon, often observed in roentgenograms in chronic appendicitis.

**Knuckle s.** In pulmonary embolism with infarction apart from increase in size of the pulmonary artery, there is an abrupt tapering of the occluded vessel distally.

**Lacuna skull.** Multiple fenestrations separated by thick bony ridges.

**Lead pipe colon.** See pipe stem colon.

**Leather bottle stomach.** Narrow lumen and rigid walls, rapid outflow with no local filling defect in carcinoma of stomach.

**Ledge-like (squared off) appearance.** Of left cardiac border below the left atrial appendage due to massive hypertrophy of left ventricle in hypertrophic obstructive cardiomyopathy.

**Left shoulder contour of LV.** As the LV becomes larger its shadow becomes rounded progressively, and the distance from the point of opposite pulsation to the cardiac apex increases.

**Limbus vertebra.** Secondary ossification centres appear at the tops of all vertebral processes, occasionally one or more of these fail to unite and will persist into adult life as a separate bony fragment. This results in a triangular bony mass along the anterior border with a corresponding defect in the adjacent vertebral body.

**Looser's zones.** Translucent bands of decalcification perpendicular to the surface of the bone in osteomalacia, often situated symmetrically at points of stress such as pubic rami, neck of femur, axillary border of scapula and the ribs.

**Madonna fingers.** Decalcification of terminal phalanges of fingers and toes in osteo-genital dystrophy.

**Marble bones.** Unusual density and radio-opacity of bones.

**Mathe's s.** In perinephric abscess, absence of downward displacement of kidney that occurs normally in erect posture. (Excretory pyelograms in both lying down and erect postures are required).

**McGregor's line.** Line drawn from upper surface of posterior edge of hard palate to most inferior part of floor of posterior fossa. Normally the tip of the odontoid process does not project more than 4 mm above this line.

**Mediastinal wedge.** Collapsed right upper lobe in lateral projection, seen as indistinctly defined triangular shadow with its apex at the hilum and its base contiguous to the parietal pleura just posterior to the extreme apex of the hemithorax.

**Medusa locks.** Trapping of gas between masses of round worms may give appearance suggesting coiled locks of hair, seen on plain x-ray of abdomen.

**Meniscus shaped border.** In pleural effusion, the density of fluid is high laterally, and it curves gently downward and medially with a smooth meniscus-shaped upper border.

**Meniscus s. of Kirklin.** In malignant ulcer of the stomach, the rolled edge may be seen as filling defect around the crater.

**Mercedes-Benz (triradiate) s.** Triradiate lucency representing gas fissuring within a non-opaque gallstone on plain film roentgenogram. Also see seagull sign.

**Metacarpal s.** Abnormally short 4th (also sometimes 5th) metacarpal in gonadal dysgenesis.

**Middle lobe step.** Sometimes with disease of right middle lobe, PA view of chest reveals disruption of typical smooth contour of pleural fluid along the lateral chest wall at the level of the horizontal fissure; at this point, the thickness of the fluid layer increases abruptly and appears as a density whose upper margin is sharply defined, coinciding with the precise location and configuration of the horizontal fissure.

**Milkman's lines.** Rarified zones characteristic of osteomalacia, especially in pelvis and ribs. See Looser's zones.

**Milkman's pseudofractures (Clefts).** Incomplete fractures, which have a tendency to be bilateral and symmetrically placed, in osteomalacia.

**Miliary mottling.** Fine, pinpoint shadows uniformly throughout both lungs in miliary tuberculosis.

**Morton's curve.** Central type of bronchogenic carcinoma associated with atelectasis in the right upper lobe produces an inverted S appearance.

**Mottled skull.** 1. Loss of definition of outer and inner tables in hyperparathyroidism. 2. Patchwork of increased and decreased density in Paget's disease. 3. In fragilitas ossium congenital ossification progresses slowly leaving wide sutures and multiple wormian bones.

**Moulage s.** In regional ileitis and sprue, the small intestine may present an appearance suggesting a uniform, rigid, cast-like tube filled with barium and presenting no mucous membrane pattern.

**Mushrooming.** 1. In psoriatic rheumatoid arthritis. Expansion of head of metacarpal and tapering of base of corresponding proximal phalanx. 2. In Paget's disease. Expansion of head of femur.

**Napkin-ring deformity.** Carcinoma of large bowel is usually annular in type, and on barium enema appears as a localised stenosed lesion.

**Onion-skin bone deposits.** Thickening of cortex of bone by successive deposits in the form of onion-skin in Ewing's tumor.

**Otto's pelvis.** Bilateral protrusion of heads of femora and acetabula into the pelvis, seen at times in patients with advanced generalised rheumatoid arthritis.

**Pad s.** Absence of barium in antrum of stomach due to extrinsic pressure by carcinoma of pancreas. In case of carcinoma of head of pancreas, the C of the barium filled duodenum is widened, so called because it appears as if the C is crammed with padding.

**Pancake appearance of heart.** In straight-back syndrome, compression of heart between sternum and vertebral column gives an impression of increase in transverse diameter of the heart.

**Parallel line calcification.** Many parallel lines of calcium deposits following configuration of vascular markings in Sturge-Weber disease.

**Passavant's bar.** Localised muscular contraction producing a localised prominence of posterior pharyngeal wall.

**Pear-shaped skull.** See J-shaped sella.

**Pearl necklace (beaded) appearance.** Of renal artery seen on angiography in fibrous dysplasia.

**Pearl necklace gall bladder.** Filling of cystlike enlarged Rokitsky-Aschoff sinuses if most of the gall bladder is involved.

**Pelken's scurvy line.** Translucent line of metaphyseal rarefaction on the diaphyseal side of metaphysis, the region where microfractures and separations occur.

**Pelken's spur.** Hemorrhages on the metaphyseal side of epiphyseal plate resulting in calcified spurs in scurvy.

**Pellegrini-Steida lesion.** Ossification of medial collateral ligaments of knee due to repeated minor trauma.

**Pencil-in-cup appearance.** In psoriatic arthritis predominant involvement is of distal interphalangeal joints. There is marginal erosions at the proximal side of the joint, and central erosion at the distal site.

**Pencil-like cortex.** Characteristic thin cortex of epiphysis in scurvy.

**Pendulous gall bladder.** Mobile gall bladder in older women with abdominal visceral ptosis.

**Peritoneal mice.** An appendix may outgrow its blood supply, necrose, saponify and separate; the detached appendices may be free as peritoneal mice and simulate calcified glands.

**Petrified gall bladder.** Punctate areas of calcification in the organ.

**Phantom disc.** In degenerative disc disease of the spine, occasionally a thin, wafer-like translucent space is visualised with one or more discs (mostly lower lumbar) severely involved.

**Phantom tumor.** Hydrothorax associated with congestive failure tends to localise in interlobar pleural fissure. The disappearing tumor occurs most frequently in the right horizontal fissure.

**Phrygian cap.** The gall bladder assumes the shape of a conical cap with the peak bent or turned over in front due to a congenital deformity, with a septum producing a deep indentation in the fundus.

**Pocket fence thickening of bowel wall.** Thickening of plicae folds and irregular luminal narrowing due to intestinal intramural hemorrhage e.g. from anticoagulants.

**Pig bronchus.** Rudimentary bronchus arising from right posterior wall of distal trachea, commonly an incidental finding at bronchography.

**Pig tail s.** Narrowed recto-sigmoid segment distal to a slightly dilated sigmoid segment seen on barium enema in Hirschsprung's disease.

**Pincer shaped ending of barium enema.** In intussusception there may be a characteristic pincer shape at the end of a barium enema.

**Pipe stem colon.** Narrowed, smooth colon of uniform width throughout the affected area in advanced ulcerative colitis.

**Pipe stem ureter.** Thick and narrowed ureter in renal tuberculosis.

**Popcorn calcification.** Calcification in hamartoma.

**Popple's s.** Papillary oedema in subacute relapsing pancreatitis causes the papilla to acquire a characteristic smooth, semilunar configuration.

**Porcelain gall bladder.** Calcified wall of gall bladder in calcifying cholecystitis.

**Potato glands.** Bilateral enlargement of hilar lymphnodes in sarcoidosis.

**Pruned tree appearance.** Dilatation of main pulmonary arteries, with abrupt tapering of the vessel in the middle and outer third of the lung in pulmonary arterial hypertension.

**Pseudo-calculus defect.** Evanescent defect at the distal bile duct secondary to prominence of the surrounding smooth muscle on cholecystogram.

**Pseudo congenital heart s.** Straightening of cardiac border due to counterclockwise cardiac rotation as a result of shift in pectus excavatum.

**Pseudo post-Billroth I s.** With regional enteritis spreading from duodenum to stomach, there is a tubular or funnel-shaped narrowing of antrum, pylorus and duodenal cap in which all commonly recognised landmarks are obliterated.

**Pseudo pneumonia s.** Density due to thickness of anterior chest wall along edge of sternum as it is indented inward in pectus excavatum.

**Pseudo tumor s.** Localised distension of intestine simulating mechanical obstruction in mesenteric vascular occlusion.

**Punched out areas.** 1. *In skull.* Small round deposits virtually diagnostic of multiple myeloma. 2. *In hands and feet.* Small periarticular erosions or localised cystic areas in gout. Also rheumatoid and osteoarthritis, sarcoidosis, metastatic cancer from bronchus.

**Pyloric beak.** Extension of contrast medium into compressed portion of distal ileum, a sign of hypertrophic pyloric stenosis.

**Pyloric peak s.** A characteristic peristaltic wave that persists in the distal lesser curvature in pyloric stenosis.

**Pyloric star.** Star-shaped collection of barium remaining on duodenal side of pylorus for few moments may be mistaken for ulcer crater.

**Railway spine.** See bamboo spine.

**Rat's tail appearance.** 1. *Of bronchus.* Tapering of lumen of bronchus in irregular fashion at site of block in bronchial adenoma or carcinoma. 2. *Of gall bladder.* Distal obstructed margin of cholecystogram in carcinoma of head of pancreas. 3. *Of oesophagus.* In achalasia of cardia the obstruction at the cardia tapers in a smooth manner.

**Renke complex.** Ghon lesion with calcification of drainage lymph-nodes in hilum or mediastinum.

**Reversed 3 s.** See Inverted 3 sign of Epsilon.

**Reversed 5 s.** In patients with hypoplastic left heart syndrome, the right border of the cardiovascular shadow consists of two parts, the upper border is formed by SVC alone, which may show striking angulation at its point of entrance into right atrium, the ascending aortic shadow is absent and the right atrium is usually enlarged.

**Ribbon heart** (Strap-like heart). In emphysema the low diaphragm results in elongation and clockwise rotation of the heart on its longitudinal axis so that the heart is deceptively small.

**Rickety rosary.** The changes noted in the metaphysis of the long tubular bones also develop in the sternal ends of the ribs and lead to beading.

**Rigler notch s.** In bronchogenic carcinoma, a notch or umbilication may be visible on the border of the solitary pulmonary nodule, the notch being probably due to entry of major blood vessels supplying the malignancy.

**Rim s.** Opaque ring round gallstones due to absorption of contrast medium by nonopaque stones.

**Ring s.** In hydronephrosis, after IV pyelogram the position of the dilated calyx is marked by a ring of increased density.

**Ring wall carcinoma.** Face-on visualization of carcinoma of stomach with clearly demarcated surrounding wall.

**Romanus lesion.** Erosions of superior and inferior aspects of anterior surface of vertebrae in ankylosing spondylitis.

**Root sleeves.** On myelography small triangular outpouchings of the theca seen at cord segmental level in cervical and lumbar areas.

**Rosary bead configuration.** Of oesophagus. Non-persistaltic contractions occurring simultaneously at several sites may cause compartmentization of barium column.

**Rosler's nodes.** Vascular impressions caused over inferior surfaces of ribs in coarctation of aorta. See Dock's sign.

**Rotting stump appearance.** Of femoral necks in glomerular osteodystrophy.

**Rugger-jersey spine.** Patchy osteosclerosis of vertebrae seen as alternating bands of sclerosis and decalcification.

**Sail shadows.** Asymmetrical enlargement of thymus in an infant producing indentation of mediastinal pleura giving the latter a beaked appearance, particularly on the right side.

**Salt and pepper's.** Small gas bubbles in soft tissues in subphrenic abscess due to appendicitis.

**Salt and pepper skull.** Diffuse decalcification of skull in hyperparathyroidism.

**Sandwich vertebra.** See rugger-jersey spine.

**Satellite lesions.** Small punctate areas of increased density in close proximity to a larger lesion, generally a peripheral coin lesion.

**Sausage link (hammock) type deformity of jejunum.** Alternating areas of stenosis and dilatation in Crohn's disease.

**Saw-tooth appearance.** 1. Of acromioclavicular joint in hyperparathyroidism. 2. Of colon. In chronic diverticulitis due to oedema and

spasm. 3. *Of metaphysis.* Disorganised metaphysis due to metaphysitis in congenital syphilis. 4. *Of small intestine.* In acute phase of Crohn's disease, the intestinal folds become oedematous, swollen and coarse producing irregular scattered margination of small intestine. **Scalloping of vertebral margin.** In aneurysm of aorta the constant pulsations transmitted to the vertebra erode the body structure but not the intervertebral discs.

**Scattering phenomenon.** As the barium leaves the small intestine, irregular stippling of residual barium may be seen clinging to the course of the jejunum. In sprue the stippling is coarser, more amorphous and resembles snow flakes.

**Schmorl's nodes.** In osteomalacia disc material may herniate at a weak point through the surface of the vertebral body, radiologically visible as a small excrescence when calcified.

**Scimitar syndrome.** Broad crescentic shadow due to right sided pulmonary veins seen as they descend the right atrial border to enter IVC.

**Scotty dog appearance.** Normal appearance of lumbar spine in posterior oblique view—superior articular process—ear, pedicle—eye, transverse process—head, isthmus—neck, spinous process and lamina—body, inferior articular process—foreleg, opposite inferior articular process—hindleg. If the scotty dog is wearing a collar there is a defect in the pars interarticularis, and the patient has spondylosis. If the head of the scotty dog appears decapitated from the neck, the patient has spondylolisthesis.

**Seagull (biradiate) s.** Centre of mixed gallstone in form of empty biradiate fissure, or fissure cavity containing gas. On plain x-ray of abdomen the radiolucent gas gives a seagull appearance. Also see Mercedes-Benz sign.

**Second lumen s.** In presence of fistulous communication in regional enteritis, barium may also appear in the fistulous tract.

**Sentinel loop.** Isolated distended loop of small bowel reflecting an early paralytic ileus in acute pancreatitis. (Also acute cholecystitis and appendicitis).

**Sentinel polyps. (Target s.).** Polyps adjacent to large stenotic cancers of colon.

**Serpentine artery.** Tortuous abdominal aorta seen on plain x-ray in atherosclerosis.

**Shaggy appearance of bowel wall.** Serrated appearance of large bowel in early ulcerative colitis.

**Shaggy heart.** Densities radiating from hila obscure the cardiac border in asbestosis, cystic fibrosis, pertussis, pneumonia and talcosis.

**Shepherd's hook deformity of femur.** In fibrous dysplasia of bone the upper end of femur is enlarged and loses its normal contour.

**Shish-kebab configuration.** See rosary bead configuration.

**Shomden defect.** Temporary or permanent distortion of mucosal pattern may occur after gastrostomy, gastrotomy or any type of surgical intervention with suturing or inversion.

**Sigmoid configuration of oesophagus.** Markedly dilated oesophagus in achalasia.

**Sign of Camelot.** See water-lily sign.

**Sign of Guttman.** Rigidity, open angle, niche en plateau, niche encastrée in gastric carcinoma.

**Signet ring gall stones.** Mixed stones with peripheral rim of calcium and clear centre.

**Silhouette s.** A shadow that causes obliteration of part or all of a heart border is anterior in location and lies in the middle lobe, lingula, anterior segment of upper lobe, anterior mediastinum, lower end of oblique fissure or anterior portions of pleural cavity. A radiopacity that overlaps but does not obliterate the heart border is posterior in location and lies in a lower lobe, posterior mediastinum or posterior portion of the pleural cavity.

**Small heart.** An extremely small heart shadow may suggest possibility of Addison's disease.

**Smudge shadow.** A single poorly defined small homogenous shadow in the lung, commonly caused by a tuberculous focus.

**Snowman appearance.** See cottage loaf shape.

**Snow storm appearance.** Fine nodularity or tiny modulation scattered uniformly throughout the lung fields in miliary tuberculosis.

**Soap bubble appearance.** 1. *Of mandible.* In cherubism, a familial multilocular bone disease that affects the jaw almost exclusively. 2. *Of small bowel.* Appearance produced by gas and meconium in meconium ileitis.

**Sossman's line.** Hemochromatosis of the liver may result in an increase in overall liver density due to atomic number of iron. This changes the normal density of the liver making the hepatic shadows more dense than the contiguous diaphragm and allowing the latter structure to become visible.

**Soup plate stomach.** In pyloric stenosis, the opaque meal shows retention after 6 hours and often a low slump of barium lying in the false pelvis.

**Spade appearance of phalanges.** Thickening of shafts of phalanges and tufted ends of distal phalanges in acromegaly.

**Spalding's s.** Overlapping of bones of skull, a sign of foetal death.

**Speckled fundus.** Small, disseminated collection of barium for few minutes in fundus and middle of the stomach in gastric atrophy.

**Spider deformity of bronchioles.** Bronchographic abnormality in bronchiectasis, several blind bronchioles appear to extend outward from a single point.

**Spider leg deformity in pyelogram.** In hypernephroma retrograde pyelogram shows a silent area from which calyces are absent, and around the surface of the tumor the calyces are drawn into long narrow processes.

**Spider's web pattern.** In Budd-Chiari syndrome, on injection into the portal vein, it is seen that the vessels do not correspond to any normal hepatic venous pattern.

**Spindle shaped shadow.** In atelectasis of right middle lobe, lateral view shows a triangular shadow with its apex towards hilum, and base anteriorly against the sternum and diaphragm.

**Spine s.** Clearer visualization of lower thoracic spine in region of greatest amount of sternal indentation in pectus excavatum because of narrow antero-posterior diameter of the chest at this point, than of the midthoracic spine which is still superimposed by the heart.

**Spinning top urethra.** Peculiar appearance of urethra due to bladder neck hypertrophy in girls, may be a normal appearance.

**Splinting of diaphragm.** Reduced excursion, and also elevation of hemidiaphragm due to local irritation e.g. from pneumonia, infarction, or rib fracture.

**Sponge kidney.** Numerous brush like densities extending from the calyces into the parenchyma — these represent contrast in dilated tubules and are diagnostic of medullary sponge kidney.

**Squaring of right cardiac border.** In left anterior oblique view, an enlarged right auricular appendage may result in squaring of right cardiac border

**Stacked coin (spike) appearance.** With intramural hematoma, the involved loop of small bowel presents an appearance suggesting a stack of coins or spikes.

**Stencilled appearance of heart border.** In Ebstein's disease the huge right atrium and enormous right ventricle give a stencilled effect accentuated by very clear lung fields.

**Step-ladder pattern.** Fluid levels in conjunction with markedly distended small intestine in mechanical obstruction of small bowel.

**Stewart's s.** Absence of gas from midpart of transverse colon in acute pancreatitis.

**Staghorn calculus.** Pelvocalyceal shape of kidney stone.

**Stierlin's s.** In tuberculosis of colon, the ileum and transverse colon may be filled with barium, but the barium leaves the caecum and ascending colon because of spasm.

**Stippled epiphysis.** Presence of numerous, small round opacities in the unossified epiphyseal cartilages in punctate epiphyseal dysplasia.

**Striated vertebra.** Lines parallel to superior and inferior margins of vertebra in chronic lead poisoning.

**String s.** (1) Of Kantor: Stenosis of the colon seen as narrowed segment, often of considerable extent in chronic diverticulitis. (2) Demonstration of a thin streak of barium 1.5 to 2.5 cm in length in pyloric region in hypertrophic pyloric stenosis.

**Sun burst s.** (Sunray spiculation). Radiating spicules extending as palisades at right angles to the shaft of the bone in osteogenic sarcoma, Ewing's tumor, metastasis, hemangioma, meningioma.

**Suspended heart.** In emphysema, owing to the low position of the diaphragm, the heart is low and tends to be narrow and central.

**Swallow-tail deformity.** Segmental hypoplasia of kidney seen radiologically as a swallow-tail deformity of the adjacent calyceal system during the nephrogram phase.

**Swan neck appearance** (Col de cygne). Of unfolded aorta in atherosclerosis.

**Tapered-nipple appearance.** See rat tail appearance.

**Tea cup appearance.** In enlargement of LV, on left anterior oblique view, the LV may take on a rounded, or so-called tea cup appearance.

**Tea pot spout** (Cup and spill effect). Pharyngeal pouch visualised as a rounded pouch when barium overflows into the gullet.

**Tea pot (handbag) stomach.** Cicatrisation around a chronic peptic ulcer of lesser curvature often causes shortening of it producing a 'tea pot' deformity of the stomach.

**Telescoping s.** In rheumatoid arthritis, there may be total disappearance of interphalangeal joints and a telescoping of one phalanx into another.

**Tennis racket shadow.** A ring shadow, with a tubular shadow connecting it to the hilum, in bronchial form of tuberculosis.

**Thumb printing.** In ischemic colitis, on barium enema the normal haustral pattern may be lost and rounded filling defects and crescentic irregularities may be present in a sacculated or narrowed segment. Also see picket fence thickening of bowel wall.

**Tiered spasm.** See rosary bead configuration.

**Tiling.** In emphysema the ribs run more horizontally than usual so that they tend to crowd at the apices.

**Tissue-paper folds of stomach.** Thin, crenated folds over the fundus and greater curvature in atrophic gastritis.

**Tram lines.** Parallel or slightly tapering linear shadows outside the boundary of the pulmonary hila in bronchitis.

**Tram line calcification.** Typical radiological appearance of 'tram lines' of calcification in superficial part of the cortex in Sturge-Weber syndrome.

**Twisted tape s.** Appearance on arteriography in dissecting aneurysm due to the true lumen being constricted at different points, as dissection goes round the aorta in different places at different levels.

**Tripod of Haller.** Trifurcation of coeliac axis giving rise to common hepatic, splenic and left gastric arteries seen on arteriography.

**Ulcer collar.** A relatively translucent band between ulcer niche and stomach lumen giving a collar-button appearance, a sign of benign gastric ulcer.

**Ulcer mound.** Extensive tissue mass surrounding a benign ulcer, caused by oedema and lack of distensibility of gastric wall.

**Vacuum phenomenon.** Of joints. In lumbar spine in association with severe degenerative disease of one or more of the discs, there may be seen a wafer like dark space within the disc. A similar appearance has been noted in the symphysis pubis of women during pregnancy. See phantom disc.

**Vallecular s.** Retention of barium or air in the vallecula for an inordinate period of time in those who suffer from pharyngeal paresis or paralysis.

**Vanishing lung.** Progressive bilateral bullous emphysema of lung. The bullae begin in apices of upper lobe and enlarge to compress adjacent lung tissue.

**Venous lakes.** At their terminations the middle meningeal veins enlarge into lakes which are often large enough to form distinct, sharply outlined areas of rarefaction.

**Wafer-like shadow.** Eosinophilic granuloma of vertebra may cause extensive destruction of vertebral body leading to uniform collapse so that the body appears thin in lateral roentgenogram.

**Water bottle appearance.** Pyriform shape of heart shadow in erect position in pericardial effusion.

**Water-lily s.** Laminated curled up membrane lying free in the adventitious capsules in pulmonary hydatid.

**Westmark's s.** In pulmonary embolism the affected lobe of the lung is more translucent as compared to the other lung.

**White line of Fraenkel.** Wide calcified zone of provisional calcification in scurvy.

**'Whittling'.** Absorption of tufts of distal phalanges in systemic sclerosis.

**Wilted flower appearance.** Of caudal pelvis in ureteropelvic duplication seen on excretory pycelography.

**Wimberg's circle.** Osteoporosis of epiphyseal centre leaving a white ring at its periphery in scurvy.

**Wimberg's s.** See cat bite.

**Wine glass contour of pelvis.** In Morquio's disease a type of osteochondrodystrophy with shallow acetabula.

**Wooly appearance of skull.** Thickening of skull with multiple, irregular dense nodules and small areas of rarefaction in Paget's disease.

**Worm-like impressions on barium.** In large submucosal oesophageal varices in cirrhosis.

**Y-shaped shadow.** In endobronchial tuberculosis, two short line shadows joining to form a Y-shaped shadow, usually in the upper half of the lung field, may be caused by a peripheral bronchus filled with caseous material.



### III Pathological Eponyms

**Abricoseff's anomaly.** Origin of left coronary artery from pulmonary trunk.

**Acute splenic tumor.** In cases of acute septicemia spleen may be large but seldom palpable on clinical examination being usually soft.

**Ague cake spleen.** Firm, chronic malarial spleen.

**Anchovy sauce pus.** Brownish-red colour of pus in amoebic abscess.

**Anchovy sauce stool.** Stool containing dark altered blood resembling anchovy sauce in consistency and appearance.

**Anday-Schmitz cell.** Cell with deeply notched nucleus found in blood in some cases of follicular lymphoma.

**Anitschkow cells.** Large mononuclear cells (cardiac histiocytes) found in normal hearts but increased in number in Aschoff bodies in rheumatic fever.

**Armanni-Ehrstein lesion of kidney.** Vacuolization (due to deposition of glycogen) in pars-recta of proximal tubules in some cases dying of uncontrolled severe diabetes hyperglycemia.

**Aschoff bodies.** Tiny white specks under endocardium of left ventricle and left atria in rheumatic heart disease.

**Askanazy cells (Hurthle cells).** Small or large areas of adult thyroid gland not infrequently show conversion of follicular epithelium to large polygonal cells with strongly eosinophile granular cytoplasm and often bizarrely shaped nuclei.

**Askanazy's zones.** Four principal zones of chronic peptic ulcer—superficial exudative zone, necrotic zone, granulation tissue and zone of cicatrization.

**Ask-Upmark kidney.** Rare type of true renal hypoplasia in which nephrogenesis has been arrested in one or few adjacent renal lobules after formation of juxtamedullary nephrons.

**Asteroid bodies.** Foreign body which has a delicate star-shaped cytoplasm in acute myeloblastic leukemia.

**Ball granuloma.** Large mass of granulation tissue at tracheostomy site.

**Balloon cells.** Mild degenerative changes with vacuolation and hyalinization in hepatic cells in cirrhosis.

**Basket cells.** During process of preparing a film, leucocytes may be damaged. In some cytoplasm may appear intact but nucleus appears enlarged with alteration of chromatin so that the strands appear more homogenous and may appear to have a large nucleus and may resemble reticulum cell.

**Bence-Jones protein.** Low molecular weight protein which usually coagulates when its solution is heated slowly between 45° and 60°C, which redissolves on boiling and which precipitates on cooling below 60°C. Occurs in about 50 percent of cases of multiple myeloma.

**Berry aneurysm.** Small swellings situated at the bifurcation of a vessel such as the circle of Willis.

**Bile lakes in liver in drug-induced cholestasis.**

**Biliary sand.** Thick and dark orange-brown infected bile in bile ducts in cholangitis.

**Birbeck granules.** Cytoplasmic body demonstrated in cells of classic Letterer-Siwe disease.

**Birch-Hirschfeld's tumor of kidney.** Nephroblastoma or Wilm's tumor.

**Black adenoma.** An uncommon adrenal cortical tumor that is composed of cortical cells filled with lipofuscin probably originating from cells of zona reticularis.

**Black stool.** See tarry stool.

**Blister cell.** Related forms of horn cells seen in patients with sickle cell disease. Such cells show a surface blister devoid of hemoglobin which might rupture to form the keratocyte.

**Blue lakes.** Extravasation of bile from obstructed ducts in early stages of biliary cirrhosis seen on liver biopsy.

**Bracht-Wachter bodies.** In infective endocarditis, the myocardium may show small collections of lymphocytes and polymorphonuclear cells, thought to be non-suppurative embolic abscesses.

**Brassy bodies.** Infected corpuscles in malaria have a slightly brown appearance resembling old brass.

**Bread and butter pericardium.** Rough and ragged appearance of pericardium in fibrinous pericarditis.

**Brenner tumor.** A rare variety of ovarian tumor.

**Brooke's tumor.** (Trichoepithelioma). A tumor arising from hair follicles.

**Brown atrophy of heart.** In atrophic hearts as in cancer, the heart muscle fibres shrink and lipofuscin pigment granules become concentrated in muscle cells giving the organ a distinct brown colour.

**Brown induration.** Gross appearance of lung in heart failure.

**Burr cell (Berry cell).** Spiculated RBC with short equally spaced projections. May be found in uremia, pyruvate kinase deficiency, cancer stomach and bleeding peptic ulcer.

**Buschke-Lowenstein tumor.** Giant condyloma, a condition similar to condyloma accuminata.

**Button-hole appearance.** Thickening of cusps of mitral valve so that the valve comes to form a stiff fibrous diaphragm with a small, generally central opening.

**Cabot rings.** Ringlike figure, as a rule one per cell, seen in megaloblastic anemia.

**Cayenne-pepper granules.** Characteristic appearance of pus of actinomycosis.

**Cell balls (of Vierordt's).** Aggregates of cells of superficial columnar epithelium of bronchi in sputum of bronchial asthma.

**Cementifying fibroma.** Ossifying fibroma of jaw.

**Charcot-Leyden crystals.** Diamond-shaped crystals, clear and retractile in sputum in bronchial asthma and stool in amoebic dysentery, and oxyuris granuloma of uterine tubes.

**Cheesy mucus.** Fragments of necrotic tissue, pulmonary tissue or bits of cartilaginous rings, from pin-point to peasize present in nummular sputum from a tuberculous cavity, pulmonary gangrene or abscess.

**Chinese letter pattern.** Of diphtheria bacilli. They may be single or in groups arranged at angles resembling the letters L or V.

**Chocolate cyst.** Large cyst in the ovary containing chocolate material in endometriosis.

**Cholesterol pneumonia.** Endogenous lipid pneumonia usually in part of lung peripheral to an obstructing bronchial carcinoma.

**Clay pipe-stem appearance of liver in schistosomiasis.**

**Clay stools.** Colourless stools in complete biliary obstruction.

**Cloudy swelling.** A mild type of reversible degenerative change giving the affected organ and the cells a cloudy appearance.

**Cobble stone appearance of large intestine in Crohn's disease.**

**Coffee ground vomit.** Blood altered by gastric digestion prior to vomit a dark brown appearance.

**Conch shells.** Basophilic bodies within foreign body giant cells in proliferative phase of berylliosis.

**Cola urine.** Dark brown urine due to excess of urobilinogen.

**Cor villosum.** See bread and butter pericardium.

**Cook's tumor.** Burkitt's lymphoma.

**Councilman bodies.** Areas of hyaline necrosis seen in liver cells in yellow fever.

**Crescent cells.** Large, pale erythrocytes which assume a crescent shape during preparation of blood film.

**Crooke-Russell cells.** Increase of large pale eosinophilic cells in anterior pituitary.

**Crooke's hyalin change.** In cytoplasm of hepatocytes seen in Cushing's syndrome.

**Crystal cells.** In splenectomised patients with homozygous Hb C disease, 10 percent of circulating cells may contain tetrahedral crystals.

**Currant jelly clot.** Deep red post-mortem clot.

**Currant jelly sputum.** Blood tinged lung debris in sputum in influenza and lung cancer.

**Currant jelly stool.** Evacuation of only blood and mucus in intussusception.

**Curschmann's spirals.** Corkscrew-shaped twist of condensed mucus usually surrounded by elongated mass of clear or opalescent mucus in sputum in bronchial asthma.

**Cushing's ulcer.** Peptic ulcer associated with burns.

**Dalen-Fuchs nodule.** Focal collection of mononuclear cells in Bruch's membrane most commonly seen in retinal detachment due to inflammatory process, particularly sympathetic ophthalmia.

**Dane particle.** A round particle representing HB (hepatitis B) virus.

**Darier cells.** See Paget cells.

**Ditrich's plugs.** Yellowish-gray masses in sputum having a twisted spiral network, usually wound around a central fibre and surrounded by mucus containing cells. They strongly suggest bronchial asthma but are found also in acute bronchitis, certain pneumonias and chronic pulmonary tuberculosis.

**Donovan bodies.** Short plump bacilli in granuloma venereum.

**Dochle bodies.** Light blue or gray bodies in neutrophils larger than normal granules seen in infections, burns, trauma, pregnancy and cancer.

**Drug-addict lung.** Talc embolism following IV injection of suspension in water of drug tablets by addicts.

**Dureck's nodes.** 1. Malarial granulomas. Capillaries filled with malarial parasites and the brain dotted with small foci of necrosis surrounded by glia in cerebral malaria. 2. Progressive chronic leptomeningitis on cerebral vertex in trypanosomiasis.

**Dubois abscess.** Rare cyst of thymus that may be associated with congenital syphilis.

**Dumbell tumor.** Neurogenic tumor extending through intervertebral foramen into the spinal cord.

**Dutcher-Fahey inclusions.** Intracellular inclusions in form of round or oval homogenous body in primary macroglobulinemia.

**Dyak hair sloughs.** Necrotic, black tenacious sloughs at bases of ulcers in amoebic dysentery.

**Ebstein anomaly.** Downward displacement of tricuspid valve into right ventricle.

**Envelope crystals.** Calcium oxalate crystals in urine.

**Fibrin cap lesions** (Capsular drop lesions). Exudative glomerular lesions in diabetes mellitus consisting of rounded or crescentic deposits of eosinophilic material in peripheral parts of capillaries in Bowman's capsule.

**Fish-flesh (salmon pink) appearance.** Of lymph nodes. In Hodgkin's disease the cut surface of the involved lymph nodes is pale gray, homogenous, translucent and moist.

**Flask ulcer of large intestine.** In amoebiasis, the ulcers have deeply undermined edges.

**Foam cells.** Vacuolated foamy appearance of cells in xanthomatosis and Niemann-Pick disease.

**Funnel deformity.** Funnel-shaped deformity of valve in mitral stenosis.

**Frog's spawn stool.** See red currant jelly stool.

**Gaucher cells.** Cells of reticulo-endothelial system, strikingly being of large size because of their content of kersin and relatively small nucleus in Gaucher's disease.

**Ghon focus.** Peripheral lung lesion of primary complex of tuberculosis which becomes reduced to a small nodule.

**Ghost tubules.** Non-preservation of uriniferous tubules in Chen-  
felter's syndrome.

**Giant cells.** When individual cells are unable to deal with particles which are to be removed, they fuse together to form giant cells.

1. *Finledey*. See mulberry cells.
2. *Lacunar*: in Hodgkin's disease.
3. *Langhans*: Of tuberculosis with nuclei grouped peripherally.
4. *Mirror-image*: A variant of Reed-Sternberg cell.
5. *Ring form*: Nuclei arranged in a ring.
6. *Sternberg-Reed*. Usually oval but may be round or irregular in shape with central position of nucleus in Hodgkin's disease.

**Girdle of Venus.** In syphilitic aortitis the lesion begins in the aortic wall just distal to the aortic cusps, and spreads horizontally around

the root of the aorta and distally as far as the mouths of the great vessels springing from the aorta thus forming a zonal lesion.

**Gelatinous pneumonia.** Rapidly developing tuberculous pneumonia localised because of its translucency and viscous consistence.

**Gitter cells.** Round, oval or pear-shaped cells, swollen and pale blue-staining in inflammatory renal disease, particularly in pyelonephritis and showing Brownian movement in urine.

**Gitter cells.** Macrophages found in areas of softening in brain.

**Golden paint fluid.** In pericardial effusion in myxoedema the extremely high cholesterol content of the fluid may impart to it a shimmering appearance.

**Golf hole ureters.** Rigidly open ureteric orifice in tuberculosis of bladder.

**Grape cells.** Reticulum cells in which clear areas are found and regular resembling bunch of grapes. Significance unknown.

**Grape-like cystadenoma.** Cystadenofibroma of ovary of special variety in which the tumor locules that project from the surface of the organ are markedly lobulate and even stalked.

**Grape-like sarcoma of cervix.** Stalked and lobulate tumor with clustering of lobules.

**Grawitz's tumor.** Renal adenocarcinoma, hypernephroma.

**Guarnieri bodies.** Eosinophilic, round, cytoplasmic inclusions found in smallpox.

**H bodies.** Small, illdefined, hemotoxyphile necrotic bodies which may occur in areas of glomerular damage in SLE.

**Hafry cells.** Bizarre lymphoid cells in circulating blood in acute lymphocytic leukemia.

**Hansmann cells.** Malacoplakic cells apparently modified histiocytes.

**Heart failure cells.** Large phagocytic cells filled with yellow blood pigment in lung alveoli due to chronic venous congestion.

**Hecht's pneumonia.** Giant cell pneumonia as in measles pneumonia.

**Heinz bodies.** Refractile inclusions in erythrocytes, occasionally reticulocytes, representing denatured Hb seen for instance in G6PD deficiency and after splenectomy.

**Helmet cells.** Distorted form of red cells of half disc shape with two or three pointed extremities seen in hemolyticuremic syndrome, DIC, TTP, vasculitis, march hemoglobinuria.

**Heubner's arteritis.** Cerebral syphilitic arteritis.

**Hob nail liver.** Small nodules averaging 2 to 3 mm in diameter in nutritional cirrhosis of liver.

**Hob nail lung.** Appearance of lung in infants in Wilson Mikity syndrome.

**Honeycomb lung.** Large number of small cysts found in fibrotic lung.

**Horn cells.** Keratocytes, where after the rupture of the spicules, the two horns remain giving the cell the shape of a half moon or spindle.

**Horns, ileal.** Horn-like processes projecting from the centre of the gluteal surface of the ileum in nail-patella syndrome.

**Horseshoe kidney.** Fusion of both lower poles of kidneys across the midline.

**Hour-glass gall bladder.** Advanced example of folding and stricture formation of the organ.

**Hour-glass stomach.** Cicatricial contraction around a saddle-shaped lesser curve stomach ulcer.

**Howel-Jolly bodies.** Small, well-defined, densely staining basophilic inclusion bodies which usually occur after splenectomy or are seen in severe anemia.

**Hunner's ulcer.** Interstitial cystitis in females.

**Hurthle cells.** Large cells with finely granular oxyphilic cytoplasm sometimes seen in thyroid gland.

**Hydatid sand.** Free capsule and scolices of hydatid visible as minute white grains in the fluid filling the lumen of the cyst.

**Infarct of Zahn.** Localised area of hyperaemia with atrophy of hepatic cells due to intrahepatic obstruction of portal vein or one of its branches.

**James's dots.** Dark brown and coarse pigment granules in infected red blood cells in plasmodium ovale infection.

**Kimmelstiel Wilson lesion.** Rounded, focal, nodular hyaline areas which most often occupy central parts of glomerular tufts in diabetes mellitus.

**Krukenberg tumor.** Secondary carcinoma of ovary the common primary sites being stomach, large bowel and uterus.

**Kulchitsky cell tumors.** Carcinoid cell tumors.

**Kuttner's 'tumor'.** Rare form of chronic sclerosing submandibular sialadenitis which slowly leads to such firm fibrous swelling of the gland that the condition may be mistaken for a neoplasm.

**Laennec's cirrhosis.** Micronodular cirrhosis of liver.

**Lafora body.** Large basophilic cytoplasmic bodies in dentate, brain stem and thalamic neurons composed of relatively insoluble aggregates of an unusual polyglucosan.

**Lambli's excrescences.** Minute tags of fibrin that form along lines of closure of mitral and aortic valves and which occasionally become pedunculated and after organisation form small, often tassel-shaped appendages on the margin of valve cusps

**Langhans giant cells.** See giant cells.

**Large white kidney.** In a large white man in nephrotic syndrome.

**Leg of mutton appearance.** In osteogenic sarcoma when the tumor is well developed there is a fusiform mass at the end of the bone which fades away on to the shaft.

**Leather bottle stomach.** (Linitis plastica stomach). Diffuse scirrhous carcinoma of stomach.

**Leishman-Donovan bodies.** Parasites found in the reticulo-endothelial cell system in kala-azar.

**Libman-Sacks endocarditis.** Endocardial lesions in acute disseminated lupus erythematosus.

**Lines of Zahn.** Linear markings, a distinctive feature of a thrombus.

**Liesegang rings.** Concentric lamellae of mixed gall stones.

**Lung stones** (Broncholiths, pneumoliths). Concretions found in dilated portions of bronchi or in the cavities, formed by calcification of stagnant contents.

**Macallum's patch.** Thickening of endocardium in rheumatic fever.

**Mallory bodies.** Intracytoplasmic clumps of eosinophilic material that probably represent an irreversible change in liver in alcoholics; may occur in other types of liver disease such as Wilson's disease, congestive failure and septicemia.

**Marchand's multinodular hyperplasia of liver.** Macronodular or post-necrotic cirrhosis.

**Maurer's clefts (spots).** Brick-red loops, streaks or dots seen in trophozoites of falciparum malaria.

**Meaty appearance.** Of spleen. In chronic lymphatic leukemia the cut surface of the spleen in some cases is light red with a homogeneous meaty appearance.

**Medullary sponge kidney.** Small cysts in one or more of renal papillae in both kidneys.

**Mexican hat cells.** (Target cells). Red cells thinner than normal. In stained films they have a rounded central area surrounded by a clear ring. Seen in iron deficiency anemia, liver disease and obstructive jaundice, following splenectomy, in dehydration, thalassemia, sickle cell anemia and hemoglobin C disease.

**Michaelis-Gutmann bodies.** Calcospherites or peculiar spherules, a characteristic feature of malakoplakia.

**Mikulicz cells.** Foamy mononuclear cells in which klebsiella rhinoscleroma can be demonstrated in rhinoscleroma.

**Milk spots (Soldier's spots).** Of pericardium. White, smooth, glistening, well-circumscribed areas of fibrosis of pericardium occurring primarily in the epicardial surface of anterior wall of right ventricle, generally thought to be the result of healed circumscribed pericarditis.

**Milk spots of peritoneum.** Particulate matter may be absorbed from the peritoneal cavity through lymphadenoid structures in the omentum (milk spots) whence they pass to the regional lymphatics.

**Mitral arcade.** A congenital anomaly in which short chordae extend from each papillary muscle into central portion of anterior mitral leaflet, the entire pattern being of an arcade which holds the anterior leaflet rigidly.

**Monckeberg's sclerosis.** Arteriosclerosis involving arteries of muscular type such as those of the limbs.

**Mouse-eaten appearance.** Of large intestine due to numerous minute ulcers in amoebic dysentery.

**Mouth cell.** (Cup form). Bowl shaped RBC with single concavity progressing from shallow bowl to near sphere with small dimple (mouth-shaped). Found in hereditary stomatocytosis, alcoholism, cirrhosis.

**Mulberry calculi.** Calcium oxalate renal calculi covered with sharp projections.

**Much's granules.** Grampositive granules in sputum probably remnants of degenerated tubercle bacilli.

**Mycotic aneurysm.** 1. In brain. Aneurysm in middle or anterior cerebral artery from lodgement of infected embolus usually from a vegetation on a heart valve. 2. In lung. Caseation advances quickly for an artery to be completely blocked and an aneurysm forms where the muscular and elastic coats are destroyed.

**Negri bodies.** Inclusion bodies varying in size found in cytoplasm of ganglion cells in hippocampus major and cells of medulla cerebellum in rabies.

**Niemann-Pick cell.** Modified histiocyte with foamy looking cytoplasm but no striae and not more than one or two nuclei.

**Nutmeg liver.** Mottled appearance of dark brown and light yellow areas in venous congestion.

**Oat cell.** Small, oval, undifferentiated cells tumor, a variety of bronchial carcinoma.

**Oil paint appearance.** Of *E. coli* colonies.

**"Onion bulb".** Whorls of proliferated Schwann cells and fibroblasts which encircle naked or finely medullated axons in progressive hypertrophic neuropathy.

**Onion skin lesion.** Periarterial concentric fibrosis round arterioles in spleen in SLE or sarcoidosis.

**Otonili's tumor.** Glomus tumor, nonchromaffin paraganglionoma.

**Owl-eye cell.** In cytomegalic virus infection, a clear, halo-like zone surrounds the intranuclear inclusion body giving it a characteristic owl-like appearance.

**Paget cells.** Large, pale chromatic tumor cells which penetrate and spread into epidermis of the nipple in Paget's disease.

**Pappenheimer bodies.** Normal or pathological cells containing siderosomes or 'iron bodies' staining with Wright's stain.

**Parachute deformity.** Of mitral valve. Here only one papillary muscle is present in left ventricle, and the chordae of the two leaflets converge to insert into this single muscle.

**Parboiled appearance.** Of cloudy degeneration.

**Parchment heart.** Virtually absent muscular tissue of right ventricle so that the thin fibrous wall of the chamber resembles parchment, a congenital anomaly.

**Pea soup stools.** Foul smelling stools of pea soup consistence in typhoid fever.

**Pearly tumors.** Cholesteatomas, histologically made up of a capsule of well differentiated squamous epithelium surrounding a mass of kerathyalin which may be compact and shiny.

**Pelger-Huet cells.** Mature neutrophils or eosinophils with one or two lobes per nucleus, and round, dumbell or peanut shape. A genetic anomaly.

**Penile horn.** Squamous papilloma of penis where if the superficial layers fail to desquamate, the lesions may present the appearance of a penile horn.

**Peritoneal mice.** Intraperitoneal loose bodies formed by detachment of appendices epiploicae from tension or infection.

**Peutz-Jeghers polyps.** Polyps found in rectum and colon in about half of all cases of Peutz-Jeghers syndrome.

**Peyer's patches.** Large mucosal aggregates of lymphoid tissue in terminal part of ileum in typhoid fever.

**Pick's adenoma of testis.** Tubular adenoma arising from Seroti cells of seminiferous tubules.

**Pigment gall stones (Biliary gravel).** Dark green or almost black gall stones with irregular nodular outline.

**Potato tumor.** Carotid body tumor.

**'Pregnancy tumor'.** Granuloma pyogenicum of gums common during pregnancy.

**Purse string appearance.** Of mitral valve orifice in mitral stenosis.

**Pipe-stem stool.** Shape of stool in carcinomatous stricture of rectum.  
**Powdered wig deposit.** Fine points on surface of mucous cloud in urine in oxaluria.

**Prune juice blood.** Dark, thick blood in ectopic gestation.

**Prune juice sputum.** Purulent sputum containing changed blood pigment.

**Queyrat's erythroplasia.** Precancerous lesion occurring principally on glans penis, but also on vulva and mucous membrane of mouth.

**Randall's plaque.** Deposition of urinary salts at the apex of one of the renal papillae, an initial lesion in many cases of renal calculi.

**Red urine.** Hematuria, hemoglobinuria, myoglobinuria or porphyrinuria, ingestion of drugs or rarely ingestion of beets.

**Red currant jelly stool.** Bright, blood-red, gelatinous stool in bacillary dysentery.

**Reed-Sternberg cells.** See giant cells.

**Regaud-Schmincke tumor.** Metastasis of anaplastic carcinoma arising in nasopharynx or oesophagus.

**Reider cells.** Radial segmentation of nuclei on preparation of blood film.

**Reilly bodies.** Abnormal granules in leucocytes in gargoylism.

**Resmussen's aneurysm.** Aneurysm in lung resulting from tuberculous caseation destroying the muscular and elastic coats of an artery.

**Ribbon (Pellet-like) stool.** Peculiar shape of faeces in irritable bowel syndrome due to excessive segmenting activity of colonic smooth muscle.

**Rice water stools.** Flaky strands of white matter in watery, grayish stools due to altered mucus (and not as traditionally been held presence of cast-off mucosa).

**Rouleaux.** In some films erythrocytes become aligned in aggregates resembling stacks of coins. This may be an artefact but often suggests diagnosis of plasma cell myeloma or macroglobulinemia.

**Russell-Fuchs bodies.** Hyaline particles seen in plasma cell exudates wherever they occur.

**Rusty (khaki) sputum.** Altered blood mixed with tenacious sputum in lobar pneumonia.

**Saddle embolus.** Large embolus at bifurcation of aorta.

**Safety pin appearance.** Of plague bacillus.

**Sago grain stool.** Faeces intermingled with blood and mucus in amoebic dysentery.

**Sago spleen.** Focal form of amyloidosis due to deposition of amyloid in arteriolar walls and extending into surrounding lymph follicles.

**Schaumann bodies.** Multinucleate giant cells which contain asteroid bodies which are lamellated in sarcoidosis and Crohn's disease.

**Schneeberg cancer.** Cancer lung due to exposure to irritants such as radioactive substances.

**Schuffner's dots.** Red-staining inclusions within red cells in vivax malaria.

**Sea blue cells.** In ceroid storage diseases cells stain blue or greenish blue in Giemsa preparations.

**Sezary cell.** (Lutzner cell). Large mononuclear cell in dermis in Sezary's syndrome.

**'Satellitoses'.** In liver, in alcoholic hepatitis hepatocytes may be surrounded by neutrophils.

**Shadow cells (Ghost cells).** Red cells in dilute urine become swollen or have their hemoglobin dissolved out, leaving the apparently empty cell membranes.

**Sickle cells.** Shape of cell in sickle cell disorders.

**Signet ring cells.** 1. In alcoholic fatty change in liver affected hepatocytes appear distended, usually by a single fat globule that pushes the nucleus to one side. 2. In carcinoma of stomach, when the mucus secreting cells are anaplastic they appear rounded with nucleus displaced to one side by a globule of mucus in the cytoplasm.

**Singer's node.** Laryngeal nodule due to thickening of mucosa of the cord.

**Silver (coloured) stool.** In carcinoma of ampulla of Vater there is melena but since the stool does not contain bile due to obstruction of common bile duct, the clay coloured stool of obstructive jaundice is modified by the altered blood giving rise to silver-coloured stool.

**Skip areas.** Areas of unaffected bowel in Crohn's disease.

**Slate coloured spleen.** In chronic malaria.

**Smoky urine.** Appearance of urine resembling smoked meat colour due to microscopic hematuria in acute glomerulonephritis.

**Speckled spleen.** In polyarteritis in some cases there is extensive confluent necrosis due to occlusion of vessels involved in the arteritis.

**Spider cells.** Cells with many processes that suspend them within the vacuole in myocardium in rhabdomyoma.

**Spurr cells.** Irregularly spiculated RBC projections of varying length and position found in abetalipoproteinemia, alcoholic liver disease, post-splenectomy state and malabsorption.

**Stab cell.** Granulocyte characterised by a nucleus which is horse shoe-shaped or lobulated but not segmented in that the rudimentary lobes are connected by a thick band of chromatin.

**Stag horn calculus.** Phosphatic renal calculus taking the shape of renal calyces.

**Starry sky appearance.** Histological picture of lymph gland in Burkitt's lymphoma due to profuse scattering of single, large, pale or vacuolate macrophages among closely packed more darkly stained tumor cells.

**Stein-Leventhal ovaries.** Cystic ovaries differing from normal in the overlarge size of cysts.

**Strawberry gall bladder.** Cholesterol deposits in the organ may take a diffuse form in which the mucosa is speckled with yellow spots of abnormal lipid deposits.

**String carcinoma.** Carcinoma of ascending or transverse colon, the lesion appearing as if a string were tied round the bowel.

**Sulfur granules.** Pinhead-sized granules in actinomycosis.

**Swan neck lesions.** Of renal tubules in cystinosis.

**Swiss cheese endometrium.** Irregularly dilated or cystic glands, and presence in some cases of conspicuous rounded cysts in cystic endometrial hyperplasia.

**Tadpole cells.** Appearance of cells in epidermoid carcinoma.

**Target cell.** Spot of hemoglobin in centre surrounded by a clear area which in turn is surrounded by a rim of Hb at the outer edge of the cell.

**Tarry stool.** Dark stools containing blood.

**'Tart' cell.** Monocyte or neutrophil which has often phagocytosed another cell seen often in LE cell preparation.

**Target cells.** See Mexican hat cells.

**Taussig-Bing heart.** Congenital defect with aorta emerging completely from right ventricle. Pulmonary trunk either comes off completely from right side or straddles the inter-ventricular septum.

**Tear drop poikilocyte.** (Racket cell). Cell with a single elongated or pointed extremity seen in myelofibrosis with myeloid metaplasia, myelophthitic anemias, thalassemias.

**Thimble bladder.** Severe contracture of bladder due to fibrosis in longstanding cases of tuberculous cystitis.

**Thorn apple crystals.** Ammonium biurate crystals in urine.

**Thrush breast (Tigroid, tabby cat) heart.** Speckled appearance of endocardial surface of the heart in fatty degeneration.

**Toothpaste stool.** In Hirschsprung's disease the faeces are expressed from the anus like a toothpaste from a tube.

**Toxic megacolon.** In very acute ulcerative colitis, the bowel is prone to become dilated and its wall progressively thinner till perforation occurs.

**Tracheal rings.** Along blood vessel length in Monckeberg's sclerosis.

**Tram track glomerular basement membrane.** Double contour appearance due to splitting of basement membrane in type I mesangiocapillary glomerulonephritis.

**Tree bark appearance.** In syphilitic aortitis the intima is scarred but the intervening tissue is wrinkled like the bark of a tree.

**Tumefacts.** Microscopical collection of small, tightly packed, proliferating round or spindle-shaped cells occasionally found in several areas of lung, especially in relation to bronchiectatic lesions.

**Typhoid cells.** Large macrophages which show tendency to ingest other cells in lymphoid tissue of mesenteric lymph nodes.

**Vanishing lung.** In extensive, destructive panlobular emphysema both lungs may be largely converted into a delicate fine network of persisting blood vessels with no remaining alveolar walls.

**Vegetable soup stools.** Profuse watery diarrhoea in the stage of invasion in trichinosis.

**Virchow's foam cells.** In lepromatous leprosy.

**Von Meyenburg's complex.** Hepatic microhamartoma, a common minute symptomless lesion.

**Wafer cell (Thin cell).** Thin, flat cell with hemoglobin at periphery in thalassemia, obstructive liver disease.

**Warthin's tumor.** A benign tumor of parotid gland.

**Warthin-Finkeldy giant cells.** Large multinucleate giant cells in lymphoid follicles in prodromal stage of measles.

**Weigert tubercles.** In hematogenous tuberculous dissemination the wall of the affected vessel becomes replaced by tuberculous granulation tissue.

**White bile.** Colourless bilirubin-free fluid in gall bladder due to cystic duct obstruction.

**Winkles-Welbach bodies.** Asteroids found in sarcoid lesions.

**Wire loop lesion.** Segmental thickening of basement membrane of glomerular tufts in SLE.

**Womb stones.** Calcified fibroids of uterus.

**Woody thyroid.** Riedel's thyroiditis.

**Zahn's infarct.** See infarct of Zahn.

**Zenker's degeneration.** Hyaline change in voluntary muscle in severe cases of typhoid fever and other severe infections.

**Ziemann's stippling (dots).** Small dots and points in red cells in quartan malaria.

**Zoster bodies of Lipschutz.** Intranuclear inclusions in vesicles of herpes.





## IV PHENOMENA

**A formed p.** Rapid ventricular and supraventricular arrhythmias might not be accompanied by a drop in cardiac output or stroke volume. This is due to the fact that in rapid tachycardias ventricular contraction does not necessarily follow each electrical depolarisation. This phenomenon allows a longer period of ventricular diastolic filling so that cardiac output and blood pressure remain near normal.

**Andre-Thomas (spring like) p.** Seen in finger-to-nose test; the patient appears to touch the nose several times as if on a rebound. The same is observed when patient raises his hand above his head; when asked to drop it down on his head a rebound will occur in cerebellar disease.

**Aschner's ocular p.** (Oculocardiac reflex). Heart rate, and to a certain extent respiratory rate, may be slowed by pressure on the eyeball or by painful stimulation of the skin on the side of the neck.

**Ashman's p.** Longshort cycle in A. Fibrillation promoting aberrant conduction.

**Babinski's pronation p.** If the palmar surfaces of the hands are held in approximation with the thumbs upward and then are jarred or shaken, the paretic hand falls into a position of pronation.

**Becker's p.** Pulsation of retinal arteries in exophthalmic goitre.

**Bell's p.** (or sign). 1. In upper motor neurone facial paralysis, voluntary attempts to close the eye are accompanied by upward rotation of the eyeball. 2. A positive bilateral response of eyelid closure (on testing corneal response), and upward deviation of eyes indicates normal function of brainstem tegmental pathway from midbrain to low pons.

**Bonnet's p.** A modification of Lasegue's test. The pain may be more severe or elicited sooner, if the test is carried out with the thigh and leg in a position of adduction and internal rotation.

**Cheek p.** In meningitis if pressure is exerted on both cheeks, just under the zygomas, there is reflex upward jerking of both arms with simultaneous bending of both elbows.

**Clasp knife p.** Attempts to overcome spasticity in upper motor neurone disease meet with maximum resistance at the beginning of the movement; there is then a release and the latter part of the movement is achieved with little difficulty.

**Cogwheel p.** On passive motion of a limb, the muscular resistance is felt as a series of jerks alternating with periods of arrest. This phenomenon is a special expression of the rest tremor in paralytic agitans. It disappears during sleep.

**Cushing's p.** A rise in systolic B.P. as a result of increased intracranial pressure.

**Dance de tendons.** A minor degree of Romberg's sign can often be detected in the earlier stages of tabes where the patient is still able to stand with the eyes shut, but the extensor tendons on the dorsum of the foot are seen to undergo irregular contractions.

**Deja vu p.** A feeling of familiarity, a hallucination in epileptic convulsive disorders.

**Dejerine-Lichtheim p.** In subcortical motor aphasia, while the patient cannot speak, he can indicate with his fingers the number of syllables in a word.

**Doll's eyelid p.** When testing doll's head-eye phenomenon, the neck is briskly flexed and extended. A positive response is deviation of the eyes upward on flexion, and downward on extension. The eyelids may open reflexly when the neck is flexed, allowing the examiner to test the levator palpebrae function as well.

**Doll's head p.** See Cantelli's s.

**Edelmann's great toe p.** Flexion of the thigh at the hip while the leg is extended at the knee is followed by dorsiflexion of the great toe; this may be present with cerebral oedema as well as meningeal irritation.

**Ewart's p.** Lifting of ptosed eyelid during swallowing of liquids.

**Finger (Souques') p.** Active elevation and extension of arm is followed by involuntary hyperextension and abduction of fingers in pyramidal disease.

**Foot p.** Ankle clonus.

**Football p.** In pronounced kyphosis of ankylosing spondylitis, on inspiration the protrusion of the abdomen become particularly pronounced.

**Gallavardin p.** In aortic stenosis one may hear a harsh murmur in the aortic area and at the base of the neck on the right. But at the left sternal border, over the left midprecordium, and at the apex the murmur is purely musical. This dissociation is referred to as Gallavardin phenomenon.

**Ganser p.** Hysterical pseudo-dementia in which the subject gives wrong answers to questions which are intended to test general knowledge and intelligence.

**Gartner's p.** The degree of fullness of the veins of the arm as it is raised to varying heights indicates the degree of pressure in the right auricle.

**Gegenhalten p.** In some of the extrapyramidal disorders, especially athetosis, there is stiffening of a limb in response to changes in position and posture.

**Gordon's knee p.** In chorea testing of the knee jerk with the patient's feet off the ground reveals an abnormally prolonged relaxation of the limb after the contraction.

**Grasset-Gaussel p.** The normal individual, when in recumbent position, can raise either leg separately or both legs simultaneously; in pyramidal lesion he may still be able to raise either leg separately, but cannot raise them simultaneously.

**Gunnz's p.** Swelling and spasm of paralumbar ms. on side of lumbar intervertebral disc herniation.

**Hemifield slide p.** Type of diplopia resulting from complete bi-temporal hemianopia. If patient's eye remains straight, the two residual half fields will overlap and diplopia will result although no paralysis of extraocular ms. has occurred. Conversely, if patient's eyes converge, he will have to develop alternate fixation, otherwise objects will disappear just temporal to the fixation.

**Hochsinger's p.** Pressure on inner side of biceps produces closure of the fist in tetany.

**Holmes's p.** Rebound phenomenon in cerebellar disease.

**Howshep-Romberg p.** Irritation of obturator n. produces pain on medial side of knee.

**Hunt's paradoxical p.** In dystonia musculorum deformans if examiner attempts forcible plantar flexion of the foot which is in dorsal spasm, there is increase of dorsal spasm, but if patient is ordered to extend the foot he will perform plantar flexion.

**Interossei p.** If a patient with organic paresis due to disturbance of frontal or pyramidal system carries out the request to elevate his extended arms, the fingers of the paretic hand will show over-extension and spread.

**Jaw winking p.** See Marcuss Gunn p.

**Job-Easedow p.** When iodine is given to goitrous patients in areas of iodine deficiency, an occasional patient develops hyperthyroidism.

**Keebner p.** In psoriatic arthritis exacerbation by trauma may produce a localised flare in both skin and joints.

**Kinesia paradoxa.** In Parkinsonism often the patient is able to carry out rapid movements requiring considerable exertion better than slower and less energetic movements. For instance the patient who can walk only slowly may be able to run quite fast.

**Koch's p.** If a positive reactor to tuberculin vaccine is revaccinated, there is acceleration response with a red angry ulcer at the injection site.

**Kochner's p.** 1. Lines of papules occurring in distribution of scratch marks in lichen planus. 2. Areas of psoriasis may appear at sites previously damaged by trauma.

**Levitation p.** In large lesions of the parietal lobe, if the arms are held outstretched in front of the patient, the affected arm may slowly rise.

**Lillehei p.** Development of bacterial endocarditis in presence of peripheral arteriovenous fistula.

**Lust's p.** Adduction with dorsiflexion of the foot on tapping the external popliteal n. just below head of fibula in spasmophilia.

**Magnetic p.** (Groping). Dorsiflexion and supination of foot and toes whenever the patient is required to flex the knee and hip against resistance in athetosis.

**Marcuss Gunn p.** Patient has unilateral (usually congenital) ptosis. The eyelid cannot be lifted on voluntary effort but lifts involuntarily and automatically when patient opens his mouth, or moves his mandible to the opposite side.

*Inverted Marcuss Gunn p.* Closure of the eye during movement of the jaw usually observed during the process of regeneration after Bell's palsy.

*Inverted and reversed Marcuss Gunn p.* It is not the mandible which moves first but the eyelid. Closing the eye automatically produces movement of the mandible to the opposite side; there is no ptosis. A positive result i.e. touching the cornea causing the mandible to move briskly to opposite side is a valuable sign of supranuclear lesion of trigeminal n.

**Mouthing p.** Seen in elderly hemiplegics, in which the patient while awake chews and licks his lips although his mouth is empty. This appears to be related to tension. Possibly caused by lesions in mouth area of vermis of cerebellum.

**Myotonic p.** Constriction of pupils follows slowly on convergence, and at the cessation of convergence it remains constricted for a perceptible interval in Holmes-Adie syndrome.

**On-off p. or effect.** (Akinesia paradoxa). The attacks comprise a more profound prolonged motor deficit than those encountered before treatment with levodopa. Akinesia is a prominent feature. The phenomenon develops over a few minutes and clears spontaneously over a similarly dramatic short time.

**Pendeluft.** A phenomenon associated with flail chest, due to paradoxical movement of affected lung, causing dead space gas to shift from the abnormal to normal side on inspiration and back on expiration, so that the patient in effect inspires with each breath a portion of his expired air leading to further hypoxia and hypercapnoea.

**Pinch p.** Clinical significance same as Rumpel-Leede p.

**Pool's leg p.** Elicited in latent tetany by holding the leg at the knee and flexing strongly at the hip joint; this is followed by spasm at the knee joint with supination of the foot.

**Pronation p. of Strumpell.** The patient is asked to bring his hand to his shoulder by flexion of the elbow. The normal individual will bring the palm of the hand to the shoulder with the hand in supination. In organic hemiparesis this movement will be accompanied by pronation so that the dorsum of the hand will approach the shoulder, the palm looking forward.

**Push button p.** Soft tumors in von Recklinghausen's neurofibromatosis can be pushed in by the palpating finger, to return immediately on release.

**Raccourcisseurs p.** (Flexion reflex of the lower limbs). A nocuous stimulus applied to the distal part of the lower limb elicits a triple flexion consisting of flexion at the hip joint, flexion at the knee joint, and dorsiflexion at the ankle joint. Normally the dorsiflexion of the ankle joint occurs only when the reflex is elicited from the sole of the foot. When a stimulus applied anywhere elicits dorsiflexion at the ankle joint, it is abnormal and suggests a pyramidal lesion.

**Raynaud's p.** Intermittent attacks of pallor or cyanosis of digits, with pain in the ms. of hand and forearm, often aggravated by exercise of the limb.

**Rebound p.** 1. See rebound test. 2. In rheumatic fever, withdrawal of salicylates or steroids is sometimes followed by rebound exacerbation of symptoms for a few days.

**Riddoch p.** In occipital lobe disease one can perceive motion of small objects, but one does not perceive the form of even much larger objects.

**Rideau p.** See curtain movement.

**Rumpel-Leede p.** Constriction of upper arm for few minutes with sphygmomanometer cuff at a level just above diastolic pressure will produce petechial hemorrhages in distal areas of skin, indicating lowered capillary resistance, or hemorrhagic diathesis due to platelet disorder.

**Schellong-Strisoner's p.** Fall of systolic blood pressure on assuming erect position from lying down position.

**Schuller's p.** If hemiplegia is functional, the patient turns to the unaffected side when walking, if organic he turns to the affected side.

**Schultz-Charlton p.** Failure to record bilateral touch in the course of simultaneous stimulation of identical points on both sides. This occurs in the presence of intact touch sensation in contralesional parietal lobe lesions.

**Squatting.** A phenomenon associated with breathlessness in congenital heart disease, especially tetrad of Fallot. On exertion the child suddenly ceases his activity and lies haunched up on one side or in the knee-chest position. The benefit derived from squatting is probably from a decrease in the left-to-right shunt.

**Strumpell p.** Dorsiflexion of great toe in pyramidal lesion on forceful pressure over anterior tibial region.

**Suspension p.** In the new born infant, for a few months of life, a finger or other object placed on the palmar surface of hand or fingers is grasped in a reflex manner, and with such force that the infant can be lifted up, holding on with each hand.

**Therapeutic paradox.** A rare phenomenon observed with treatment of cardiovascular syphilis in which there is apparent healing of the lesion but with objective evidence of the disease more grave, e.g. murmur of AI becomes louder or more prolonged.

**Tongue p.** Mechanical stimulation of the protruded tongue is followed by a transient depression or dimpling at the site of stimulation in tetany. A similar phenomenon may be present in myotonia.

**Traube's p.** See Traube's s.

**Triple response p.** In dermatographic individuals, a firm stroke on the back with the edge of a tongue blade produces a red line in 15 seconds, an axon reflex flare in 45 seconds, and a wheal in 1 to 3 minutes.

**Tullio p.** Vertigo induced by noise.

**Vernett's rideau p.** Curtain movements of the pharyngeal wall toward the non-paralysed side at beginning of phonation.

**Wenckebach's p.** In adhesive pericarditis, retraction of lower chest with simultaneous flattening of abdomen may replace normal forward movement during inspiration.

**Wernicke's hemianopic p.** If the lesion which causes a homonymous hemianopia is situated in the optic tracts anterior to the lateral geniculate body, the fibres subserving the light reflex are also involved, and there is loss of pupillary response when a pencil of light is focussed on the involved half of the retina.

**Williams' p.** The tympanitic note of skodaic resonance in pleural effusion varies in pitch with opening and closing of the patient's mouth.





## V LAWS AND RULES

**Bastar's law.** If there is a complete transverse lesion of *spinal cord* cephalad to the lumbar enlargement, the tendon reflexes of the lower extremities are abolished.

**Broadbent's dictum.** Aneurysm of ascending aorta is aneurysm of signs, aneurysm of transverse arch aorta is aneurysm of symptoms.

**Broadbent's law.** Predilection of certain ms. to paralysis (hand and arm ms. most and leg ms. next) with pyramidal tract disease.

**Cannon's law.** Exogenous gastrin given to subjects with achalasia leads to a rise in pressure much higher than normal.

**Colles' law.** A child that is affected with congenital syphilis, its mother showing no signs of the disease, will not infect the mother.

**Collin's law.** In children if after removal of a tumor, metastasis or recurrences have not taken place after a period of time equivalent to the age of the patient at the time of removal plus nine months, its probability of doing so subsequently is only slight.

**Corry's law.** The stage of vaccination reaction may pass through more quickly, the time taken depending on the existing immunity.

**Courvoisier's law.** A palpable gall bladder in the presence of jaundice means that the jaundice is unlikely to be due to a gall stone.

**Fitz's law.** Acute pancreatitis is to be suspected when a previously healthy person is suddenly affected with violent epigastric pain, vomiting and collapse, followed inside of 24 hours by epigastric swelling, tympanitis or resistance, with slight elevation of temperature.

**Forbes's law.** Impotence as a main complaint is never due to organic disease.

**Hebermeister's rule.** In fevers, the pulse rate increases at the rate of about eight to every centigrade of temperature.

**Hering's law.** Innervation impulses are normally distributed equally to extraocular ms. of each eye. This provides an explanation for the secondary deviation of the sound eye when one or more ms. are paralysed in the other.

**Hilton's law.** In general, ns. supplying ms. acting on a joint also supply the joint.

**Jackson's rule.** After epileptic attacks, simple nervous processes are more quickly recovered from than complex ones.

**Lossen's rule.** In hemophilia only women transmit the disease, only men inherit it.

**Louis' law.** Any tuberculous lesion in the body occurring after puberty is likely to be associated with pulmonary tuberculosis.

**Marey's law.** A pulse of high tension tends to be slow.

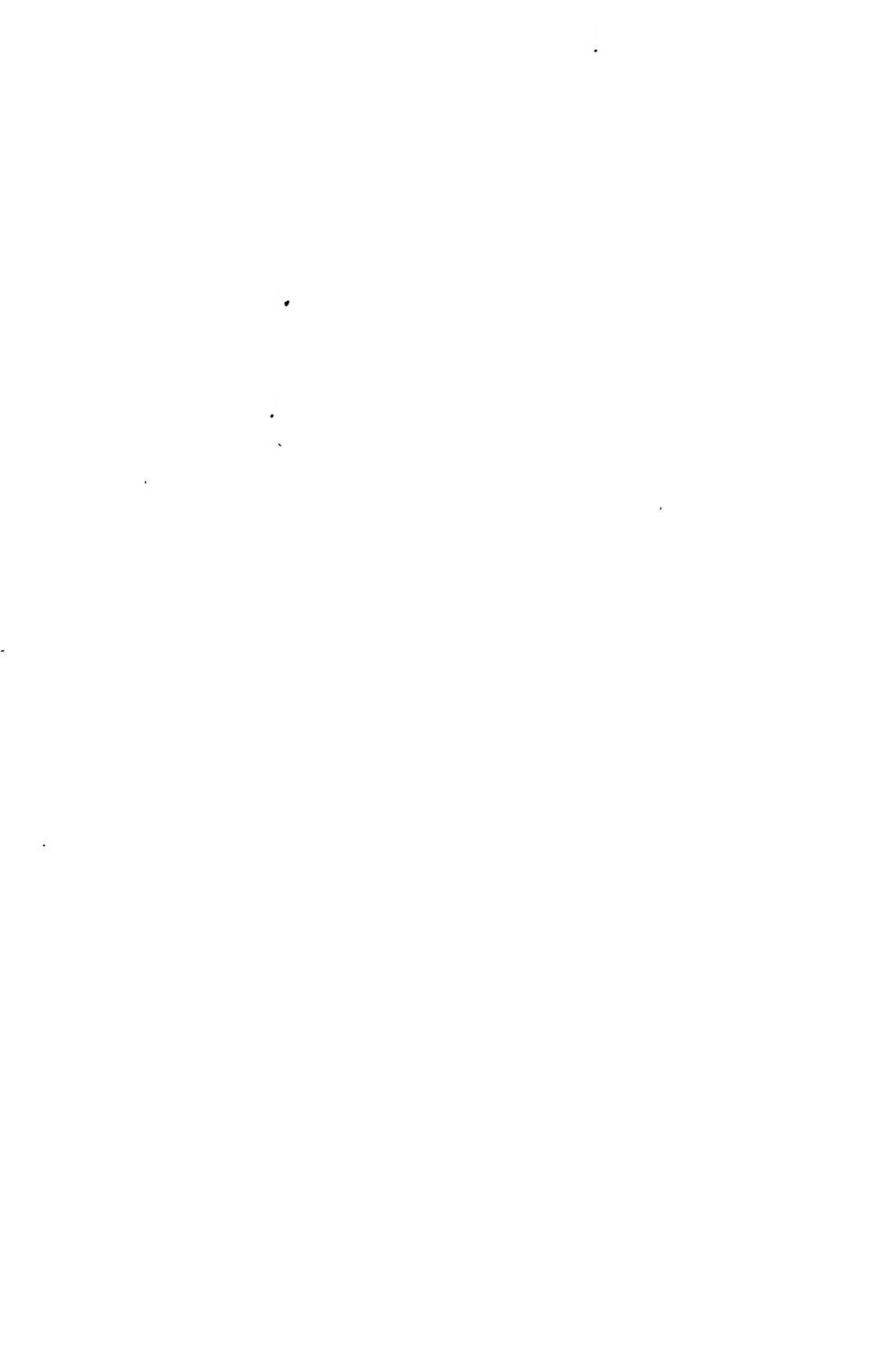
**Nageli's law.** A disease in which eosinophils are present in one-half normal, normal or increased number cannot be typhoid.

**Parrot's law.** Heavy involvement of regional lymph nodes during the stage of initial tuberculous infection, e.g. hilar lymph nodes in case of tuberculous infection of subpleural alveoli.

**Prevost's law.** In lateral cerebral lesion the head is turned to the side on which the lesion is situated.

**Rolleston's rule.** The ideal systolic pressure for an adult is the figure represented by 100 plus half the age in years. The maximal physiological pressure is 100 plus the age.

**Semon's law.** Progressive damage of recurrent laryngeal n. results first in paralysis of the abductors of the vocal cords, then the tensors, and finally the adductors.





## VI TESTS, MANEUVERS AND METHODS

**Adson's t.** (maneuver). Of scalenus anticus syndrome. The seated patient is asked to hold his arms at the side, and the examiner keeps his finger on the pulse. The patient now takes a deep inspiration and holds it, if the chin is rotated forcibly toward the involved side, the radial pulse is shut off and the paresthesia are reproduced.

**Allen's t.** For testing efficiency of blood supply to hand. The examiner presses the radial artery firmly against the bone while the patient clenches both fists firmly for about half a minute, and finally holds it open for inspection. Normally the palm remains pink from ulnar supply to the volar arch. If the ulnar artery is stenosed or obstructed, exercise causes the palm to pale, the pallor remaining for a variable time, or until the radial artery is released. The test is then repeated with compression of the ulnar artery.

**Anvil t.** 1 *Spine*—Application of sudden jerk on the head in Pott's spine. 2 *Hip joint*—Striking the inferior surface of calcaneus produces pain in hip joint disease.

**Altschaler's maneuver.** The third, fourth and fifth fingers of the left hand are laid on the outer border of the right ilium, while the left index finger is placed on the inner border. The index finger is then gradually moved downwards over the soft parts from the anterior superior spine. If the appendix is acutely inflamed and lies retrocaecally, a circumscribed area of tenderness and muscle spasm will be identified over the right pelvic region.

**Apple jelly t.** In lupus vulgaris if a glass slide is pressed firmly over the lesion, apple jelly-like nodules become apparent.

**Arm dropping t.** The patient's arms are briskly raised and dropped. With increase in m. tone there is a delay in the downward movement of the arm, while with hypotonicity, the dropping is abrupt.

**Arm tapping t.** The patient facing the examiner stands with his arms outstretched horizontally. The examiner suddenly and briskly taps both arms at the wrist downward with the same force, either simultaneously or one after each other. On the side of cerebellar disease the displacement caused by the tap is much greater, and the arms swings up and down for a long time in a flail-like fashion.

**Auscultation t.** For site of embolus. The femoral (or brachial) artery is temporarily occluded at the root of the limb with pressure from sphygmomanometer cuff, or manual compression with thumb. A stethoscope is applied at various points along the course of the artery from above downwards. After the pressure is released, the booming of the returning arterial flow will be heard until the site of embolus is reached, when there is an abrupt cessation of sound.

**Ayer's t.** Cistern and lumbar punctures are performed and both needles are connected to the manometers. The pressure in the two

manometers should be the same. The pressures are different if block is present. Also in presence of block, removal of fluid from any one needle does not give a fall in pressure in the other manometer.

**Babinski's tonus t.** The forearms are flexed passively at the elbow while the upper arms are held abducted at the shoulders. With hypotonicity there is exaggerated flexibility and mobility, and the elbows can be bent to an angle that is more acute than normal. With hypertonicity there is reduced flexibility of the forearms against the upper arms, and passive flexion cannot be carried out beyond an obtuse angle.

**Baldwin's t.** While finger pressure is maintained over the flank, the patient is asked to raise the right lower limb keeping the knee extended. This produces increase of pain in retrocaecal appendicitis.

**Baranay's pointing t.** See pointing-pastpointing ts.

**Barney's maneuver.** To differentiate acute appendicitis from renal calculus. The finger is moved inward and downward one inch from Mc Burney's point in a direction at right angles to the line on which this point lies. Increasing pressure is then made with the fingertips until pain or spasm is produced. When this point is located, concentric circles of decreasing size are drawn about it with the finger. As the finger moves towards the centre from the periphery, the tenderness becomes more and more marked and is maximal at the central point if the condition is ureteral calculus; in acute appendicitis this is not true.

**Bernstein t.** Prolonged perfusion of oesophagus with 0.1 normal HCl elicits clinical symptoms that could be assumed to be of oesophageal origin.

**Binet-Simon ts.** The tests for measurement of intelligence are arranged in groups so as to correspond to the various stages of development of the normal individual, and help one to determine his intellectual age.

**Blaxland's t.** See ruler t.

**Block-Stenger t.** Modification of Stenger t. A low pitched tuning fork is placed in front of the good ear, and then a high pitched fork near the affected ear. If the patient is deaf in that ear he perceives no change, but if he hears with the so called affected ear, the sound of the low-pitched fork on the good side will be marked, and he will hear the higher pitched instrument.

**Blowing t.** Raising intra-abdominal pressure by blowing to detect a lump in the abdominal wall, incisional or inguinal hernia.

**Blumberg's t.** In acute appendicitis, deepening pressure with the fingers over the appendix area followed by their sudden removal or release causes pain.

**Book t.** See Froment's sign.

**Bookman's maneuver.** For demonstrating acute pain in the liver. The crooked index finger is inserted in the umbilicus and drags it

downward toward the symphysis pubis. As a result the round ligament is stretched and in turn exerts traction on the liver.

**Bottle t.** The test of grasping the thick part of a wine bottle between thumb and index finger. In median n. palsy the grasp is weak and the thumb does not become properly approximated to the surface of the bottle as in a normal grip. The thumb grips the bottle insecurely along its ulnar and not its palmar aspect. The grip is even weaker if the long flexors of the fingers are also paralysed by a lesion of the n. near the elbow.

**Bourdon's t.** A test of attention. The patient is asked to strike out certain letters in a page of a book, e.g. every P he sees.

**Bracelet t.** Production of pain on moderate lateral compression of lower ends of radius and ulna in rheumatoid arthritis.

**Buerger's t.** In TAO when patient lies on the back, and the affected leg is raised vertically upwards, a marked pallor develops in 2 to 3 minutes.

**Caloric t.** Of vestibular function. The patient is instructed to signify the onset of dizziness or nausea. He is placed upright with the head tilted 60° backward, and the external auditory canal is irrigated with 100-200 ml. of cold (19°-21°C) water. The patient is then examined for nystagmus and past pointing with each hand.

**Capillary blanching t.** For identifying degree of shock. The skin of the forehead is blanched with thumb pressure. Normally there is return of circulation in 1.25-1.5 seconds. With moderate degree of shock it takes more than 1.5 seconds, with severe degree of shock there is pallor before and after the test.

**Card t.** Patient is given a card and asked to grip it between the fingers. If the interosseous ms. are weak the patient will offer poor resistance to its withdrawal.

**Carnett's t.** 1. For differentiating pain in pre-eruptive stage of herpes zoster from acute cholecystitis. Ask patient to hold his nose, close the mouth and blow. The abdominal tenderness is just as acute as it was when the right hypochondrium was palpated before tensing of the musculature. 2. See leg lifting t.

**Chapman's t.** For acute abdominal conditions. The patient is told to assume a supine position with his arms at the sides and then to raise himself by the abdominal ms. alone, when he fails to rise or feels great pain in doing so, the test is positive.

**Chewing t.** For fifth n. motor function. Palpation of the masseters when the jaw is firmly closed allows evaluation of the motor status.

**Chin-test mn.** With patient recumbent and relaxed, the neck is passively flexed so that the chin rests on the chest. This puts the n. roots, particularly those of lower thoracic, lumbar and sacral segments on tension with consequent production of pain from any one of them which may be diseased.

**Coin t.** 1. *For pneumothorax.* A coin is placed in the midzone on the front of the chest and is tapped with another coin, if this causes a ringing metallic (bell) sound on auscultation on the back, there is likely to be a pneumothorax, probably with a broncho-pleural fistula. 2. *For spinal rigidity.* The child is asked to pick a coin from the floor. A child with Pott's disease will keep the spine rigid and reach the coin by bending the knees. 3. *For impairment of corticospinal tract.* Six coins are placed on a flat surface and the patient asked to pick these up one at a time, placing each coin in his palm before picking up the next. With early corticospinal tract disease the patient cannot maintain the coins in his grasp while independently moving the thumb and index finger.

**Cold pressor t.** Immersion of the hand in water at  $3-5^{\circ}\text{C}$ . for one minute causing a rise more than 20 mm Hg. in systolic and 15 mm Hg. in diastolic pressure is a hint that permanent hypertension is likely to develop in later life.

**Compass t.** (Two point distinction). A test for combined sensation is carried out with a compass. Different regions of the body vary in their capacity to distinguish two separate points of contact applied simultaneously at various degrees of separation. Convenient areas for testing are palms and soles (where the average patient can distinguish points 1.5 to 2.0 cm. apart), dorsa of hands and feet (3 cm.), finger tips (0.3 to 0.6 cm) and shins (4 cm.).

**Confrontation t.** Rough method for testing field of vision. Examiner stands or sits opposite the patient at a distance of 3 feet. To test the patient's right eye, he is asked to cover his left eye with a piece of paper and keep gazing at examiner's left eye. The examiner closes his right eye in similar manner and looks with his left eye steadily at the patient's right eye. The four quadrants of vision are tested separately by moving the finger of one of the hands, along a plane midway between the examiner and patient from various points from periphery to centre.

**Cough impulse t.** The examiner places his fingers on the thigh just below the saphenous opening with the pulp of the middle finger resting on the vein. On asking the patient to cough, a thrill is felt by the finger if the valve at the sapheno-femoral junction is incompetent.

**Counting t.** To determine any incipient paralysis of ms. of respiration e.g. in acute poliomyelitis. The patient is asked to take a deep breath and count aloud rapidly, the examiner noting how far he can count in one breath. Normal individuals can count to 20 or more in one breath, with paralysis of respiratory ms. this may drop to 10 or less.

**Cover t.** In the normal individual the two eyes remain directed towards an object if one eye is covered. This is easily investigated by alternate covering of the eyes when patient is looking at (i) a distant object, (ii) an object close to the eye. The test is useful for detecting strabismus where the degree of weakness is too slight to be observed.

**Cozen's t.** For tennis elbow. The patient is asked to clench his fist. Palmar flexion of the wrist against patient's attempt to keep the wrist dorsiflexed causes pain in the region of the lateral epicondyle.

**Crowe's t.** For detection of lateral sinus thrombosis. The jugular vein on one side is compressed, if this leads to swelling of the veins of the face, scalp or retina, it indicates that the other internal jugular vein or its sigmoid sinus is obstructed.

**Dehio's t.** If bradycardia is relieved by inj. of atropine, the condition is caused by irritation of vagus, but if it is not relieved the cause is some affection of the heart m.

**Dimpling t.** Application of lateral pressure with the thumb and index finger to pigmented lesions of the skin is a simple method for differentiating between benign and malignant pigmented cutaneous lesions. Dermatofibroma, a common benign skin lesion dimples or becomes indented when subjected to lateral pressure, while melanoma and melanotic naevi protrude above their initial plane, as does normal skin subjected to manipulation.

**Dugas' t.** In dislocation of shoulder, owing to abduction of lower end of humerus, it is impossible to place the hand of the patient on the opposite shoulder.

**Ebbinghaus's t.** For reasoning power. Patient is asked to complete a sentence in which several words have been left out.

**Effort tolerance t.** The subject steps on and off a chair twenty times in one minute. The pulse rate is counted before, immediately after and two minutes later. The pulse in the normal person will revert to normal within two minutes.

**Einhorn string t.** The location of blood stain on the thread which patient is asked to swallow may help to decide whether the site of bleeding has been in low oesophagus (hiatus hernia or varix), or in the duodenum as a result of ulcer.

**Facial massage t.** In a hemiplegic patient both the cheeks are rubbed vigorously. Even in deep coma the corner of the mouth on the non-paralysed side tends to be drawn up.

**Fasting t.** For hypoglycemia after prolonged (18-24 hrs.) fasting. Blood sugar estimations are performed at intervals and immediately if symptoms suggestive of hypoglycemia appear. If these occur a blood sample is removed and iv glucose given and its effect noted. In this way requirements of Whipple's triad may be fulfilled.

**Faulkner's method.** For reinforcement of knee jerk. The patient lies on his back with the knees half extended and is asked to press his heel against the subjacent bed. This induces a relaxation of the quadriceps, so that the knee jerk is more easily elicited.

**Femoral nerve stretch t.** If in lumbar L2, L3 disk protrusion pain is felt in front of the thigh, ask the patient to lie on the abdomen

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is asked to walk and turn around on command. An ataxic gait is thus brought out. 2. A modification of Romberg's t., the patient being asked to stand with one foot in front of the other for testing co-ordination.

**Frenkel's t.** Delicate way of testing gait where patient is asked to walk along a straight line heel to toe.

**Fukuda's stepping t.** For vestibulo-spinal reflex. The blindfolded subject is placed in the centre of two concentric circles divided into angles of  $30^{\circ}$  and is asked to mark time for one minute. His rotation on his own axis and any movement forward, backward, or to the side is noted. In normal individuals there is only minimal rotation or movement.

**Fuschsig's t.** Patient is seated with his legs crossed. Oscillatory movement of the foot occurs synchronously with the popliteal artery pulse if the artery is patent.

**Gaensler's t.** The hip is hyperextended on the affected side with one hand, while the pelvis is fixed by flexing the hip and knee of the affected side. This produces pain if sacro-iliac joint is involved.

**Gault t.** For simulated deafness. By closing the good ear and then making a sound near the supposed bad ear, a winking motion of the cyclid on the side tested indicates hearing.

**Gower's maneuver.** See Gower's s.

**Gilli's t.** For sacro-iliac joint involvement. With the patient lying on the abdomen, the thigh is hyperextended on affected side with one hand, while the pelvis is fixed with the other hand placed on the unaffected sacro-iliac joint. This causes pain.

**Glabella tap t.** (Nasopalpebral reflex). The examiner standing in front of the subject taps the glabella or nasion quickly for some-time. (To avoid winking reflex the hand should approach from the patient's back). Normally there will be blinking of both eyes for 2 to 3 taps, then there will be no response due to patient's adaptation. In Parkinsonism the subject may be unable to suppress the reflex blinking. The test is often positive in nervous subjects. The reflex may be absent on one side in facial paralysis of lower motor neurone type.

**Glenard's t.** In pain or discomfort due to visceroptosis, on standing behind the patient, raising the lower abdomen with both hands and holding it up in that position may produce some relief.

**Grasset and Gaussel's t.** Inability on the part of the organically hemiplegic patient to raise both lower limbs simultaneously from the surface when lying down, although he is able to lift either limb separately. This test is positive only in cases of complete hemiplegia.

**Grip t.** Squeezing the arm by use of sphygmomanometer cuff inflated to 20 mm Hg. to elicit pain and paresthesia.

**Heel-drop t.** (1) In Parkinsonism the increased antagonist tone is best demonstrated by this test. If the head of the recumbent patient is held in the examiner's hands, then suddenly released, it does not drop passively downwards but sinks slowly on to the pillows or remains suspended for some time. (2) For acute appendicitis. Patient is asked to stand with his knees straight. The examiner faces him and asks him to do as he does. He stands on his toes for a few seconds and relaxing suddenly comes down with his full weight on his knees with a thump. The patient does likewise and experiences pain if there is intra-abdominal inflammation.

**Head tilt t.** For 4th nerve paralysis. Tilt the head first to one shoulder, then the other. Observe the amount of vertical separation of the eyes (or of the diplopic images). The greatest separation occurs with the head tilted to the same shoulder as the side of paralysis.

**Heel-knee t.** In the lying down position, patient is asked to place the heel of one foot on the opposite knee and to slide it smoothly, evenly and quickly down the shin, and then back upto the knee again. The movement is repeated a few times. Ataxia is seen as a slower, more deliberate series of movements, with a wavy motion of the foot from side to side.

**Howard t.** (Differential urine analysis). Bilateral ureteric catheters are passed so that samples of urine can be collected from each kidney. A decrease of at least 15 per cent of sodium concentration and of 60 per cent of urinary volume suggests renal arterial stenosis on that side.

**Hess's capillary t.** (Tourniquet t.). A circle is marked on the forearm one inch in diameter, with its upper edge two inches below the edge of the elbow. Now the B.P. cuff is tied and the pressure kept halfway between systolic and diastolic for 15 mts. The number of hemorrhagic spots appearing in the circle is noted. Anything above 20 is abnormal and indicates increased fragility of the capillaries.

**Hine's t.** See cold pressor test.

**Holme's rebound t.** The subject flexes his arm at the elbow against the resistance of the examiner who suddenly lets go the arm. In the normal only a short movement of flexion occurs, in cerebellar disease the excursion is much greater.

**Holmgren's t.** For colour vision with coloured skeins of wool.

**Hot tea t.** Pain of hiatus hernia is invariably made worse by drinking hot fluids.

**Ice-water calories.** To demonstrate full range of eye movements in an unconscious patient. On douching of the intact external ear canal with 50 ml of ice water, with the head elevated to 35°, the eyes will deviate conjugately toward the stimulated side for several minutes; after 5 minutes the other side may be irrigated. With a lesion of the lateral hemisphere, the hemiplegia may be accompanied

by tonic deviation of the eyes away from the hemiplegic side. This type of pathologic eye deviation can be overcome by calorics (or by doll's head maneuver), because brain stem centres for eye movement are intact. The test will not reverse the tonic conjugate lateral deviation towards the hemiplegia with certain acute pontine lesions.

**Invagination t.** For inguinal hernia. The examiner invaginates the scrotum upon the little finger (preferably right hand for left side and vice versa), and rotates the finger so that the nail lies against the cord, and then follows the spermatic cord upward to the superficial inguinal ring. The patient is now asked to cough; a palpable impulse will be felt in presence of inguinal hernia.

**Janet's 'Yes-No' t.** The patient is instructed to close his eyes and say 'Yes' every time he feels a pinprick and 'No' everytime he does not feel it. In hysterical anaesthesia the patient will say 'No' everytime he is touched over the apparently totally anaesthetic area.

**Jansen's t.** For osteoarthritis deformans of the hip. The patient is told to cross his legs with a point just above the ankle resting on the opposite knee. This motion is not possible when disease exists.

**Japanese illusion t.** For hysterical sensory loss. The child crosses his arms, palms opposed, clasps his fingers and brings the locked hands inward and upward. It is then very difficult for him to distinguish right from left, sensory stimulation or demand for movements produces gross inconsistencies.

**Jendrassik's method of reinforcement.** Patient hooks both hands together pulling them one against the other, and looks upward towards the ceiling, thereby diverting his attention and incidentally increasing the reflex tonus of the leg ms.

**Jonsonn maneuver (Modified Valsalva maneuver).** Have patient blow through compressed lips with the nose closed in order to maximally distend the hypopharynx.

**Kisch. t.** Of peripheral ischemia. The reclining patient is asked to flex the thigh on the abdomen, and the leg at the knee at the same time. This is followed by extension of the extremity. This is repeated 30 times/mt. Plantar ischemia and claudication time are noted.

**Kocher's t.** In case of tracheal compression by retrosternal goitre, stridor is produced by pressure on lateral lobes of the thyroid gland.

**Kortokoff's t.** In case of aneurysm, the artery above the aneurysm is compressed; if the B.P. in the peripheral circulation remains fairly high, there is good collateral circulation.

**Laufenauer's method.** Of reinforcement of tendon jerk. The examiner grasps the patient's quadriceps whilst the patient sits with his soles flat on the ground. The patient holds the examiner's upper arm with one hand and suddenly squeezes it when told to do so; meanwhile the percussion hammer is struck.

**Leake's oedema t.** In acute cholecystitis, oedema can be demonstrated by comparing the appearance of skin and subcutaneous tissues overlying the tips of the right eighth and ninth ribs.

**Leg lifting t.** Patient raises both the extended legs from the bed. Significance same as rising test.

**Levine t.** Relief of angina pain by carotid sinus massage.

**Lewis's reactive hyperaemia t.** The limb is elevated and gently stroked until pale, then a B.P. cuff is applied to maintain exsanguination for 5-10 minutes; normal skin develops an even flush 3 to 5 minutes later, but the skin over an area of arterial poverty fills slowly.

**Libman's t.** For judging patient's response to a painful stimulus. The thumb is pressed firmly against the tip of the mastoid bone and then the finger slipped forward pushing hard against the styloid process. The normal response is neither hypo- nor hyper-sensitive.

**Lichtheim t.** The patient is asked to name and describe what he sees in pictures. If he is unable to recall words or names, he may be asked to select the correct name out of a group of words suggested to him (reinforcing expression by either auditory or visual symptoms), or to tell the number of letters or syllables in the word he wishes to speak.

**Loewi's t.** See Loewi's s.

**Lowenberg cuff t.** For detection of calf venous thrombosis. Wrap a B.P. cuff on thigh just above the knee. Close the valve and inflate the cuff gradually to 180 mm Hg. Spontaneous complain of calf pain at 20-80 mm Hg. (that is above venous pressure) is highly suggestive of local venous disease, particularly if 150-180 mm Hg. contralateral thigh pressure is well tolerated.

**Macewan t.** Stimulation of patient in alcoholic coma will cause a dilatation of the pupil, with a slow return to the contracted stage when stimulation is withdrawn.

**Magnuson's t.** (Pointing test for malingering). When patient indicates a painful spot in the lower back, it is marked with a skin pencil. As a diversion the examiner proceeds with tests elsewhere in the body, later he again palpates the back. In the malingerer a different painful site will be elicited.

**Marie Fox m.** Elicitation of withdrawal reflex in spinal cord automatism in traumatic lesions of spinal cord, elicited by forced passive flexion and supination of the foot.

**Marie paper t.** For comprehension of spoken language. Patient is told "this is a piece of paper, tear it into four parts and place on the table, give one to me, and keep the two for yourself."

**Marshall-Marchett t.** To establish diagnosis of stress incontinence. The bladder is filled by catheter with 200-300 ml. of water, after which the female is told to cough or strain suddenly. If water escapes from the bladder, the bladder sphincter is incontinent. Now

the examiner introduces the first and second fingers of the gloved hand into the vagina with palmar surfaces to the anterior vaginal wall. Pressure is now applied to each side of urethro-vesical junction, lifting the bladder neck to a position against the retropubic area. Patient is again asked to cough; in case of true stress incontinence no water escapes from the urethra.

**Masselon t.** For reasoning power. Patient is asked to form a sentence containing certain words e.g. pen, ink, letter.

**Match t.** The patient takes a deep breath and tries to blow out a lighted match with his mouth wide open. This is normally possible at 4 feet or more.

**Maximum breath-holding t.** Patient is asked to hold his breath as long as he can. Normal subjects can hold it easily for at least 30 seconds, but patients with an anxiety state usually cannot do so.

**Mechotyl t.** 2 per cent mechotyl applied to the eye has no effect on the normal pupil. It causes constriction in patients with Holmes-Adie syndrome, A.R. pupil and familial dysautonomia.

**Mendelsohn's t.** A test for efficiency of heart m. based on the rapidity of recovery of pulse from acceleration produced by exertion.

**Mennel m.** In sacroiliac strain, the pain can be provoked by forced extension of the sacroiliac joint by having the patient lie on his healthy side with the ipsilateral knee and hip joints flexed, and the examiner forcibly extending the outstretched leg on the affected side.

**Middleton's maneuver**—For palpation of liver. The patient lies on his flexed right forearm. This position elevates the thoracic spine and anterior rib margin and thrusts the liver forward, thus bringing the liver edge away from the ribs and making it more prominent.

**Mittlemeyer's t.** Patient is asked to march without progression on one spot; the subject suffering from abnormality of vestibular system will gradually turn to the side contralateral to vestibular excitation, or homolateral to vestibular loss.

**Morrissey's t.** Sapheno-femoral valvular incompetence can be tested by elevating the leg to 30°, allowing veins to empty, asking patient to cough and noticing a retrograde venous pressure wave in saphenous vein.

**Moschowitz t.** For determining adequacy of collateral circulation. A bandage is firmly applied beginning at the extreme distal end of the extremity and extending proximally. It is applied tightly enough to obliterate the arterial system and to empty the extremity of its blood. It is allowed to remain in place for 5-10 mts. Pressure is then applied and maintained over the artery proximal to the anemiasis and the bandage is removed. If there is rapid return in the circulation as determined by the reactive hyperaemia, the collateral circulation is adequate.

**Moses's t.** Calf pain greater with antero-posterior than side to side palpation in thrombophlebitis.

**Muller m.** Forced inspiration against a closed glottis. This causes a fall in intrapulmonary pressure to 80 mm. Hg. or less. There is also fall in JVP and blood flow through lung increases.

**Modified Muller m.** Sobbing against a closed glottis, may force great quantities of air into the stomach.

**Murphy's t.** (Murphy's kidney punch). The patient sits with his arms folded in front of him, the examiner's thumb is placed under the 12th rib, and short jabbing movements are made. Thus deep seated tenderness is determined.

**Mohiniyam's method.** See Murphy's s. of cholecystitis.

**Monk's method of intestinal localization.** The line of the mesenteric root is marked and parallel lines are drawn at right angles to ends of the line. The upper, middle and lower zones thus demarcated contain the upper, middle and lower thirds of the small intestine respectively.

**Naffziger's t.** For sciatica. The patient's leg is put in the maximal straight leg position and the jugular veins compressed. This causes rise in intraspinal pressure and may aggravate the pain.

**Neck traction t.** Relief of radicular pain with a herniated cervical intervertebral disc by grasping both sides of the patient's head, and exerting strong upward traction.

**Nerve stretching ts.** Modification of Lasegue maneuver in which either the foot or great toe is dorsiflexed.

**Nalorphine hydrochloride t.** The size of the patient's pupil is measured, using a piece of cardboard pierced or marked in 0.5 mm. gradations from 0.5 mm to 3 mm. Inject 3 mg of Nalorphine hydrochloride subcut. Wait for 30 minutes and then remeasure the pupillary size with the same amount of light as before. If the pupillary size increases it suggests narcotic addiction.

**Nicholson's method.** Of overcoming abdominal rigidity. The examiner places the base of the palm of the left hand on the lower part of the patient's sternum and exerts significant pressure upon the chest with this hand. This results in an abdominal type of breathing and relaxation of the abdominal ms.

**Ober's t.** To determine presence of lumbo-sacral strain a common accompaniment of which is contracture of fascia lata and iliotal band. Patient is made to lie on the side, the thigh next to the bed is flexed till the lumbar curve is obliterated. The examiner standing behind the patient, steadies the pelvis with one hand and flexes the knee with the other hand. Next the thigh with the flexed knee is abducted to the maximum extent. Now the knee is slowly extended and the limb allowed to drop by its own weight. In the presence of contracture, the thigh fails to drop completely.

**Obturator t.** The flexed thigh is rotated so as to put the obturator m. through the full range of movement. This causes hypogastric pain in acute appendicitis.

**Ochunner's claspng t.** Patient is asked to clasp his hands. In paralysis of flexor digitorum profundus, the index finger of the affected hand fails to flex.

**O'Connell's t.** The Lasegue's maneuver is first carried out and the angle and site of pain noted. Then both thighs are flexed simultaneously while extension is maintained at the knee. The angle of flexion permitted may be greater than that allowed when the affected limb is flexed alone, or when either is flexed separately. Finally having flexed both thighs to an angle just short of that which produces pain, the second limb is lowered to the bed; this may result in marked exacerbation of pain, sometimes associated with paresthesias.

**Ortolani's t.** (or maneuver) for congenital dislocation of hip. The child's hips are placed in frog-like position, flexed so that the thigh makes a right angle with the trunk and abducted so that the legs are spread apart as far as possible. Then one thigh is adducted, while still flexed, and pressure is applied in the line of the femur in such a way as to push the femur over the posterior lip of the acetabulum. As the head slips posteriorly, a 'click of exit' is felt. If pressure in the line of the femur is relieved and the hip is abducted, the head slips back into the acetabulum, and another click the 'click of entry' is felt.

**Patrick's t.** See Fabere sign.

**Pelvic-femoral integrity t.** To determine the possibility of bony injury to the femur and pelvis. With the patient supine, press a stethoscope firmly against the exact centre of the symphysis pubis. With the legs straight and the quadriceps relaxed, tap firmly against the anterior surface of each patella and listen for a difference of sound intensity. Lack of transmission on one side may suggest fracture of femur or pubic rami, decreased intensity on one side suggests fracture with impaction.

**Pen-touching t.** The patient's supinated hand is laid on the table and a pen (or pencil) held horizontally over the thumb; the thumb cannot adduct to touch the object when the median n. is paralysed.

**Percussion t.** 1. *For sciatica.* Patient is made to lie on the abdomen on the examining table with the buttocks at the edge and the legs dangling, in this position the interlaminar spaces are opened out to the maximum. In case of irritation of n. root, sharp percussion or deep pressure may produce sciatic distribution of pain. 2. *Of great saphenous vein.* For valvular incompetence. With the patient standing, the vein is struck sharply above the knee with the left hand while the right hand palpates a segment of the vein in the leg. Perception of an impulse by the right hand suggests incompetence of the intervening valves.

**Perthe's t.** Test for obstruction of deep veins. Make the patient walk about, then inspect the varicosities. A tourniquet is applied to the midthigh with the patient standing. Now have the patient walk

about for 5 mts. If the veins collapse below the tourniquet, it indicates patency of deep veins and competency of communicating veins. If the veins become more prominent and patient complains of pain, deep veins are occluded.

**Modified Perthe's t.** (Ochsner-Mahorner modification). After the above maneuvers, the tourniquet is applied at the knee and midcalf, sequentially, to determine the level of occlusion at which the veins will collapse with walking.

**Pinhole t.** One eye is covered and patient is asked to hold a disc containing a hole 1 mm in diameter in front of the eye to be tested. If the acuity is improved by looking through the pinhole it is likely that there is a relative error. If acuity is worse, there may be a macular lesion.

**Pin prick t.** Pain sensitiveness is tested in an area of burns with a sterile hypodermic needle. In case of second degree burn pain will be felt in all or part of the burn.

**Pizzillo's method.** For inspection of thyroid gland in obesity or short neck. The patient is asked to throw the head backwards and press the occiput against his or her clasped hands.

**Pointing-pastpointing ts.** The patient and examiner are placed opposite each other and the outstretched upper extremity of each is held in the horizontal position with the index finger in contact, or with the patient's index finger placed on the tip of the examiner's index finger. The patient is then asked to elevate his arm to a horizontal position in such a way that his index finger will again approximate the examiner's. This should be done first with the right arm and then with the left, and should be tried a few times with the eyes open and then with the eyes closed. Both arms may be tested simultaneously. The t. may be repeated by patient lowering his arm and then bringing it up to the horizontal. In the normal individual there will be no deviation, but in cerebellar or labyrinthine disease there will be deviation to the involved side, or past pointing, more marked with the eyes closed.

**Polishing t.** For co-ordination. The subject polishes the outstretched hand of the examiner with a rapid circular motion. The movement of the dominant hand is quicker and smoother. Slight cerebellar dysfunction is shown as an angulation of the attempted circular movements. At rapid speeds the hand tends to push from side to side only. When dysfunction is severe the hand may slip off, and not more than a single rubbing movement is possible. Sensory ataxia and paresis cause polishing disability, but the effects of cerebellar ataxia are most characteristic.

**Popliteal compression t.** When radiating pain is produced by straight leg raising, it can often be aggravated by pressure over the course of the tibial n. through the popliteal space. When this is so it is an additional finding in favour of root compression.

**Posture t.** To determine the origin of pus in sinusitis. With the patient in upright position wipe out pus from the middle meatus. If

it appears immediately it indicates that pus is coming from frontal sinus; if it takes 15-20 mts. it is possibly from anterior or middle ethmoidal cells. If pus appears only when the head is so bent that the cheek of the affected side is uppermost, the pus comes from maxillary sinus.

**Prednisolone t.** To distinguish between jaundice due to intrahepatic cholestasis and that due to hepato-cellular damage. Prednisolone will cause serum bilirubin level to fall within a few days of hepato-cellular damage is present.

**Prostgmin t.** Muscle weakness due to myasthenia gravis improves within 15-30 minutes after subcut. inj. of the drug.

**Psoas-m.t.** Extension of right lower extremity to its full length and adducting it as the patient lies on the left side, if pain is felt inflammation of tissues adjacent to the psoas m. may be assumed e.g. acute appendicitis.

**Pump-handle t.** For sacro-iliac joint. The knee and hip being flexed, the limb is then pushed towards the opposite shoulder so as to raise the pelvis off the bed, the trunk being steadied by firmly grasping the shoulder of the same side and pushing it towards the bed. The test is performed first on the unaffected side, and then on the affected side.

**Purves-Stewart t.** In radicular sciatica, whilst ordinary stretching of the nerve trunk by Lasegue's method is painless, inward rotation of the flexed hip which puts the sacral roots on the stretch often causes pain.

**Pushing t.** Absence of normal m. response for maintenance of equilibrium resulting in retropulsion and propulsion in Parkinsonism.

**Q**uadriceps t. Patient sits well forward on the edge of a chair and holds the leg out at right angles to the body. Normal persons can hold this position for at least a minute, those with hyperthyroidism can maintain it only for a few seconds.

**R**eactive hyperaemia t. Of peripheral circulation. For lower limbs. The patient who is lying down elevates his limbs to at least 45°. In this position he dorsiflexes and plantar flexes his feet rapidly once or twice to empty the veins. This position is maintained for 2 mts. Normally the feet should blanch little, if at all, during this time. The appearance of pallor, which is best detected on the soles of the feet, particularly any appreciable difference between the degree and time of onset of pallor in the two feet is significant and indicates a diminished arterial supply. The patient then sits up and lets his feet hang; the time taken for pink colour to return to the feet and toes and for the superficial veins to fill is noted. In health these events occur within 10 seconds, any delay beyond this is significant and any difference between the rates of flushing and vein filling on the two sides indicates that one limb is affected alone, or to a more severe degree than the other.

**Rebound t.** Of ureteric colic. In ureteric colic the discomfort on deep palpation is relieved when the examining hand is released; in appendicitis the pain is accentuated.

**Red glass t.** To distinguish a weak ocular muscle. A red glass is placed in front of patient's right eye. The patient is then asked to look at a flashlight, held at distance of a meter, to turn his eyes to various points in the visual field, and to indicate with the hands the position of the red and white images in each. Interpretation—The direction in which the distance between the images is at a maximum is direction of action of paretic m., and the image produced farther from the centre belongs to the paretic eye.

**Renal angle t.** 1. See Murphy's kidney punch. 2. For perinephric abscess. On the sound side the fingers can be dipped deeply towards the kidney, on the affected side, muscular resistance does not allow this.

**Resiliency t.** Testing the eye and orbital contents for resiliency to pressure. This is done by applying fingers over the closed eyelids and attempting to move the eyeball backward. In severe exophthalmos significant decrease in resiliency is evident.

**Rinne's t.** The foot of the vibrating tuning fork is placed upon the mastoid process until it is no longer heard by the subject. The vibrating fork is then held close to the pinna. In normal subjects the vibrations are no longer heard after the base of the fork placed against the mastoid has become inaudible.

**Rising t.** The lying down patient is asked to raise his shoulders from the bed with arms folded. The test is useful for demonstrating the tone of abdominal ms. and for demonstrating whether a swelling is intra-abdominal or parietal.

**Rotation t.** The patient is seated in a chair, the head fixed by a head rest and the eyes are closed, to prevent development of optokinetic nystagmus. He is rotated rapidly, about 10 times in 20 seconds and the movement is then abruptly stopped. The eyes are opened and nystagmus observed and postural deviation and past-pointing are tested.

**Ruler t.** For ovarian cyst. A ruler is placed transversely on the abdomen with free fluid. The pulsations of the abdominal aorta are not transmitted to move it, in presence of a cyst tense with fluid, which is interposed between the ruler and aorta, the pulsation is transmitted to move the ruler upward and downward.

**Saunders's t.** (Finger heel-pointing t.). The patient lying on his back with eyes shut is asked to point his forefinger at his heel (first the right forefinger at his left heel, then his left forefinger at his right heel), while the examiner moves the heel about by passive movements. Disturbance of this t. will unmask even a slight loss of joint sense.

**Schirmer's t.** To note the amount of tear secretion, a strip of litmus or filter paper is held on each lower lid, and the amount of moistening on each side noted.

**Schwabach's t.** The acuity of hearing through bone is easily determined by placing a vibrating tuning fork on mastoid process and establishing the length of time the sound is appreciated, and then comparing this value with that obtained when the examiner (with normal hearing) places the vibrating fork on his own mastoid process. The test is of value only when the diminished acuity of hearing is bilateral. If patient has middle ear disease, he will hear the fork longer than the examiner, since room noise does not mask his ear as it does the examiner's; if patient has sensorineural loss, he will hear the fork less long than will the examiner.

**Sciatic tension t.** The patient is seated on a chair. The affected leg is extended passively at the knee to the point at which pain is reproduced; it is then flexed slightly and pressure is applied in the popliteal space, which in case of sciatic n. or n. root irritation will cause pain.

**Shoulder bracing t.** The shoulder is passively retracted and depressed. In costoclavicular syndrome, the radial pulse on the affected side is decreased more readily than in the normal subject.

**Shoulder shaking t.** The examiner places his hands on the patient's shoulders and shakes them briskly in both backward and forward and rotatory direction. With extrapyramidal disease there will be decreased range of arm swinging on the affected side, and with hypotonia, especially with that associated with cerebellar disease, the range of swinging will be greater than normal.

**Sitting knee extension t.** For sciatica. With the patient sitting one knee is extended. Patient should be observed to see if and at what angle of extension he leans backward, if there is pain, and whether the pain radiates. The maneuver is repeated on the other side and the two sides compared. The test is similar to SLR test, with one difference that in the sitting position the lumbar lordosis is largely obliterated.

**Sloan's mn.** In acute appendicitis. The patient keeping the knee straight, raises the right heel from the bed while the examiner lays his left hand over the right lower quadrant of the abdomen and applies pressure to it with the fingers of the right hand. The psoas m. is thus put on tension and the appendix is compressed between it and the examining hand. This maneuver is of special value in patients with heavy muscular abdomen in whom it is difficult to elicit tenderness in the appendiceal region.

**Sniff t.** When a subject sniffs the paralysed half of the diaphragm is seen to rise and the intact half to descend as observed by fluoroscopy.

**Sole rubbing.** A test for plantar response. The foot is held firmly with one hand and the sole is vigorously and firmly rubbed with the other fist. The toe extends when the response is abnormal.

**Sphygomanometry cuff pain t.** For thrombophlebitis. A B.P. cuff is tied round the involved part of the extremity and slowly inflated to 200 mm Hg., and then deflated. Normally discomfort is experienced during inflation at or above 160 mm Hg. In venous inflammatory disease, pain is felt at 80-150 mm Hg.

**Spinociliary reflex t.** If the skin of the neck is pinched, normally the pupil dilates on that side, there is no pupillary dilatation in Horner's syndrome.

**Sponge t.** Performed by passing a hot sponge up and down the spine. If any lesion of the spine is present, pain is felt as the sponge passes over the spine.

**Spurling's t.** If firm pressure by the thumb is applied and maintained between the laminae over a prolapsed disc, pain will be aggravated and radiation of the pain produced. For a laterally herniated disc it is elicited by downward pressure on the top of the head after the neck has been hyperextended and laterally flexed toward the extremity into which pain extends.

**Squatting ts.** 1. *In beriberi.* In the paralytic type the patient is unable to rise from squatting position with his hands on top of his head. 2. *In muscular dystrophies.* Weakness of the proximal leg and paraspinal ms. makes it impossible to rise from squatting particularly in proximal girdle and pseudohypertrophic varieties.

**Stein's t.** Inability to stand on one foot with the eyes shut in disease of the labyrinth.

**Stengert t.** Of hearing. Based on the fact that preponderance of a sound of a certain pitch in one ear eliminates the perception of a sound of the same pitch in the other ear. The examiner should first determine at what distance from the good ear a tuning fork of a certain pitch is heard. He then holds the vibrating fork one inch from the affected ear (the patient will deny hearing it). The fork is then struck and brought slowly to the good ear. If the patient has normal hearing on the affected side, he will not hear the fork until it is the same distance (one inch) from the sound ear, but if he is really deaf on the affected side, the fork will be heard at a greater distance with the good ear.

**Stepping t.** The patient is asked to mark time for one minute with his eyes closed; with unilateral cerebellar disease he will gradually rotate the axis of his body toward the involved side.

**Steroid whitewash.** See prednisolone t. which is unreliable as prednisolone may lower serum bilirubin even in extrahepatic obstruction.

**Straight-leg-raising t.** See Lasague's sign.

**Straight line t.** It involves placing one foot accurately in front of the other. It should be carried out with eyes first fixed on the floor and then shut. After 50 steps with eyes shut, at the most one turn of not more than 45°, mostly to the left side is to be expected normally.

**Supraorbital pressure t.** To judge depth of coma. Exerting pressure over supraorbital ns. All but deeply unconscious patients will respond to it by contracting facial ms. of corresponding side.

**Swallow t.** Auscultatory swallowing of liquids. When a stethoscope is placed over an area between xiphisternum and left costal border, two gurgling sounds are heard as the patient swallows a mouthful of water. The first indicates its passage from pharynx to oesophagus, the second its entrance into cardia of stomach 4-6 seconds later. Any delay in length of this time may indicate a partial hold-up of the liquid.

**Tapping t.** The patient is asked to tap rapidly the palm of the physician or some other surface. Normally the taps are rapid and evenly spaced. In cerebellar ataxia there is a slow, irregular series of taps.

**Telescopic t.** For congenital dislocation of hip. One hand is placed over the side of the pelvis just touching the greater trochanter. The hip is now flexed almost to a right angle and downward pressure is applied over the knee along the axis of the femur. The movement of the greater trochanter will be appreciated by the hand over the pelvis.

**Tensilon t.** Muscle weakness due to myasthenia gravis improves within 15-20 minutes after IV injection of 10 mg. of tensilon and the improvement lasts for 3-5 minutes.

**Test for dysdiadochokinesia.** The patient is asked to pronate and supinate his forearm in rapid succession as demonstrated by the examiner. In cerebellar ataxia reversal of movements is slow, and the movements disintegrated, and sometimes impossible.

**Thomson-Walker's two-glass t.** To demonstrate if urethra is source of infection. In the first glass there will be turbidity or threads or both, while in the second glass there will be nonturbid urine. When the bladder is involved mucopus will be present in both glasses.

**Thumb test.** For testing movements of upper extremities. Ask patient to take the index finger and tap it against the most distal joint of the thumb of the same side. This should be exactly on the joint and done as rapidly as possible without moving the hand or arm. Observe for speed, accuracy and ataxia. The movement will be slower with corticospinal dysfunction and there will often be associated or synkinetic movements of the wrist, occasionally the elbow, and on rare occasions the entire arm as the finger taps.

**Tilt t. (Stress t.).** The t is carried out by first sitting and then standing the patient. As a simple rule of the thumb, a pulse rise of at least 30 beats per minute, or a mean pressure drop of at least 15 mm. Hg. suggests hypovolemia.

**Tobey-Ayer t.** If on compressing jugular vein, the CSF pressure fails to rise, either the vein or its sigmoid sinus is obstructed.

**Toe-finger t.** The lying down subject is asked to touch the examiner's finger with the big toe of one foot. The finger should be so placed that the knee and hip have to be flexed to touch it. In cerebellar dysfunction the movement is decomposed into separate flexion and extension movements, and the leg sways.

**Token t.** For comprehension of spoken language. Patient is given a group of tokens of different shapes and asked to pick out individual ones and arrange them in patterns of increasing complexity.

**Tolbutamide t.** After overnight fast patient's blood sample is taken, followed by IV injection of 1 gm. tolbutamide. A reduction of fasting blood sugar of 40 per cent or more at 30-60 minutes, or 30 per cent or more at 180 minutes is diagnostic of a functioning islet cell tumor of the pancreas.

**Tongue wiggle.** Patient is asked to wiggle his tongue from side to side as demonstrated by the examiner. Apart from local weakness as in myasthenia gravis or bulbar palsy, the commonest causes for decrease in tongue wiggle are the rigidity of Parkinsonism or pseudo-bulbar palsy.

**Tourniquet t.** 1. For capillary fragility. See Hess's t. 2. For carpal tunnel syndrome. Raising the pressure in the B.P. cuff produces paresthesiae in one or both arms. 3. For varicose veins. See Trendelenburg t.

**Trendelenburg's t.** For competence in saphenofemoral complex. The lower limb is elevated vertically until drained of blood in the veins. A tourniquet is applied at midthigh, and the patient asked to stand up. The tourniquet is removed after 60 seconds. Normally arterial flow from below fills the veins in about 35 seconds, no further filling should occur after release of tourniquet. When occlusion of the great saphenous vein results in slow filling but release of compression is followed by quick filling from above (in less than 10 seconds), the test is positive and indicates saphenous valve incompetence.

*Pratt's modification of Trendelenburg t.* For locating incompetent communicating branches. The patient's leg is raised and the thigh gently massaged from distal end in order to empty all superficial veins. With the leg still in the raised position a bandage is applied from the toes to high on the thigh. The patient is instructed to stand, the bandage is now removed slowly while the uncovered areas are carefully observed. An incompetent valve will be evidenced by sudden appearance of a sacculi, or 'blow out' caused by back pressure developing against the superficial veins wherefrom blood from the deep system is regurgitating into the superficial vein.

**Triangle t.** Bony injury to shoulder joint can be determined by comparing on either side the bony triangle formed by tips of acromion and coracoid, and most prominent part of greater tuberosity of humerus.

**Trinitrin t.** Failure of sublingual trinitrin to relieve the pain within a minute or two is very strong evidence against the diagnosis of angina provided myocardial infarction has not recently occurred.

**Tuning fork ts.** See Rinne's t. and Weber's t. and Schwabach t.

**Valsalva m.** After a deep breath and while holding it the subject bears down by contracting his chest and abdominal ms. (forced expiration against a closed glottis). The maneuver is useful in diagnosis of murmurs, e.g. it has little or no effect on innocent murmurs whereas those arising from the right side of the heart first diminish then increase in intensity. Also palpation of the pulse helps in diagnosis of congestive heart failure. Normally during the maneuver there is reflex bradycardia, in congestive failure the pulse rate and volume are unaffected. (The 'fainting lark' or 'mess trick' consists of inducing transient unconsciousness by performing a voluntary Valsalva or compressing the chest.)

**Ventilation t. of Snider.** Hold a lighted half-burned book-type match 6 inches from the patient's mouth and ask him to blow it out. Inability to blow out the flame indicates a forced expiratory volume of less than 1,000 ml., and a flow rate of less than 120 litres per minute.

**Viet's t.** Increase of intraspinal pressure by compression of jugular veins causes exaggeration of radicular pain in patients with space-consuming lesions pressing on n. roots.

**Voice t.** For hearing. Ask patient to repeat what is spoken to him in a low whisper by the examiner at a varying distance from the ear under test.

**Wada's t.** Mutism followed by brief period of groping for names after injection of amytal. This test gives information about the location of language-output areas and cerebral dominance and its relation to speech and handedness.

**Walking t.** (1) If history suggestive of peripheral arterial disease is doubtful, or in presence of symptoms of claudication but good peripheral circulation patient can be asked to walk and then tested. (2) The patient with his eyes shut takes two steps forwards and then two steps backwards. In labyrinthine disturbance is present, patient will turn gradually to affected side.

**Water gurgle t.** For stricture of oesophagus. The swallowing of water causes a peculiar gurgle heard on auscultation.

**Weber's t.** 1. *Test of hearing.* The base of a vibrating tuning fork is placed on the vertex of the skull in midline. With unilateral n. deafness the sound is referred to the normal ear, with middle ear

deafness to the affected ear. 2. *Two point discrimination.* Ability to detect that a stimulus consists of two blunt points when they are simultaneously applied. On selected parts of the skin, the subject is asked to say whether he is touched with one or two points, starting with them far apart and approximating them until he starts to make errors. In absence of severe posterior column disease, impairment of two point discrimination indicates a parietal lobe lesion.

*Wet-dry t.* For causalgia after n. injury. Characteristic of causalgia is the extreme sensitivity of patient to dryness of skin so that if the right arm is involved and the unaffected left arm is touched with a wet hand nothing happens, but touching with a dry hand produces paroxysmal pain.

*Whisper t.* See voice test.

*Wrist flexion t.* See Phalen's sign.

*Ziehen's t.* For reasoning power by asking patient to define the distinction between say dwarf and child, water and ice, etc.





## VII TRIADS, TETRADS, PENTADS

### TRIADS

**A**bdominal tr. Cholecystitis, peptic ulcer and appendicitis in the same individual.

**B**asedow's (Merseburg) tr. Exophthalmos, tachycardia and goitre.

**Beck's tr.** Of acute cardiac compression. Rising venous pressure, falling arterial pressure and small quiet heart.

**Bezold's tr.** In otosclerosis. Retarded bone conduction, lessened perception of deep tones, and negative Rinne's sign.

**C**harcot's tr. Ataxia, nystagmus and dysarthria in disseminated sclerosis.

**Charcot's biliary tr.** Intermittent jaundice, recurrent pain, and fever with rigors in ball-valve obstruction of common bile duct by stone.

**D**iculafoy's tr. Hypersensitiveness of the skin, reflex muscular contraction, and tenderness at McBurney's point in appendicitis.

**E**nslin's tr. Tower skull due to premature ossification of the coronal suture, adenoid hypertrophy and exophthalmos.

**F**allot's tr. Pulmonary stenosis, inter-atrial septal defect, and a closed interventricular septum, which implies a normal aortic root.

**Frank's tr.** Palatal abnormalitis, deviation of nasal septum, and adenoids.

**G**rancher's tr. Lessened vesicular quality of breathing, skodac resonance and increased vocal fremitus of early pulmonary tuberculosis.

**H**ull's tr. Diastolic gallop, anasarca and small pulse pressure in severe cases of post-partum myocarditis.

**Hutchinson's tr.** Interstitial keratitis, deafness and notched teeth in congenital syphilis.

**K**acod's tr. Total ophthalmoplegia in optic tract lesions with unilateral amaurosis, and trigeminal neuralgia caused by middle fossa tumors of nasopharyngeal origin.

**Kartegener's tr.** Situs inversus, bronchiectasis and chronic sin

**Lank's tr.** Sharp unilateral lumbar pain, shock and lumbar swelling in perirenal hematoma.

**Luciani's tr.** Asthenia, atonia and ataxia in cerebellar diseases.

**Morton's tr.** Short first metatarsal, hypermobile first metatarsal segment, and posteriorly placed sesamoids (which cause a painful and disabling condition at the ball of the foot).

**Petit mal tr.** Petit mal, akinetic seizure and myoclonic seizure.

**Putty's tr.** (radiological). Of congenital dislocation of hip. Shift lateral and cephalad of femoral head, hypoplasia or absence of femoral ossification centre, and increase in pitch of acetabular roof toward longitudinal axis of body.

**Reiter's tr.** Arthritis, nonspecific urethritis, and conjunctivitis.

**Saint's tr.** Hiatus henia, diverticular disease and cholelithiasis in same patient.

**Van der Hoeve's tr.** Association of fragilitas ossium tarda and blue sclera, with osteosclerosis and deafness.

**Virchow's tr.** Stasis, endothelial trauma, and altered constituents of blood, three commonly accepted factors for clot formation.

**Whipple's tr.** Of hypoglycemia. Nervous or gastro-intestinal attacks in fasting state, fasting blood sugar below 50 mg per cent, rapid relief of symptoms with glucose.

**Tr. of Aarsog-Scott syn..** Short stature, genital anomalies, and unusual facies.

**Tr. of Achard-Thiers syn.** Adenoma or hyperplasia of adrenal cortex, diabetes mellitus and facial hirsutism in women.

**Tr.** (clinical manifestations) of **acromegaly.** Due to pressure on adjacent optic chiasma and ns., due to general rise of intracranial pressure, due to pituitary hypersecretion.

**Tr. of acute cor pulmonale** (massive pulmonary embolism). Chest pain, dyspnoea, and shock.

**Tr. of acute anaphylactic syndrome.** Urticaria and angioedema, respiratory distress, severe hypotension.

**Tr. of acute glomerular nephritis.** Hematuria, hypertension and oedema.

**Tr. of acropaxy.** Exophthalmic ophthalmoplegia, pre-tibial myxoedema, and clubbing.

**Tr. of (severe) scidosis.** Coma, hyperpnoea, and low sodium bicarbonate.

**Tr. of Alexander Priest syn.** Hypocalcemia, achlorhydria, and watery diarrhoea due to release of 'serotonin-like' hormone from non-beta cell tumor of pancreas.

**Tr. (clinical) of Addison's d.** Lassitude, low B.P. and pigmentation.

**Tr. of acute porphyria.** Abdominal pain, peripheral neuritis, neurosis and psychosis.

**Tr. of Adair-Dighton's syndrome.** Osseous fragility, blue sclera and deafness.

**Tr. of Ahmuada-Del castello syndrome.** Amenorrhoea, low gonadotropic secretion and galactorrhoea unrelated to pregnancy.

**Tr. of Adam-Stokes syn.** Giddiness, unconsciousness, convulsions.

**Tr. of Airport's syn.** Hematuria, deafness and nephropathy.

**Tr. of Albright's syn.** Fibrous dysplasia of bone, brown pigmentation of skin, and endocrine disorders (chiefly precocious puberty in females).

**Tr. of Alexander-Priest syn.** Hypocalcemia, achlorhydria and watery diarrhoea.

**Tr. of Anderson's syn.** Cystic fibrosis of pancreas, coeliac disease and vitamin A deficiency.

**Tr. of Anton's syn.** Blindness, denial of blindness and confabulation.

**Tr. of aplastic anemia.** Anemia, hemorrhages (due to thrombocytopenia) and infection (resulting from neutrophil leucopenia).

**Tr. of Arnold-Chiari syn.** Hydrocephalus, deformities of cervical spine and cervico-occipital junction, myelomeningocele.

**Tr. of Arnold Pick's syn.** Aperceptive blindness, presenile or progressive dementia, and cerebral atrophy (as demonstrated by pneumoencephalogram).

**Tr. of Ascher's syn.** Blepharochalasis, double lip, and goitre.

**Tr. of Bard's syn.** Cholecystitis, ureteritis and appendicitis during pregnancy.

**Tr. of Bard-Pick syn.** Obstructive jaundice, palpable gall bladder and progressive cachexia indicating carcinoma of head of pancreas.

**Tr. of Bar-Pumphrey syn.** A hereditary syndrome of knuckle pads, leukonychia and deafness.

**Tr. of Bechet's syn.** Recurrent iritis, genital ulceration and ulcerative stomatitis.

**Tr. of Benedict's syn.** Paralysis of 3rd n. on one side, contralateral hemianesthesia, contralateral tremor.

**Tr. of Bennet's syn.** Erythroblastic anemia, osteoporosis and steatorrhoea in children.

**Tr. of Bloom's syn.** Telangiectatic erythema of face, sensitivity to sunlight, and dwarfism.

**Tr. of Book's syn. (PCH syndrome).** Premolar aplasia, hyperhidrosis and canities prematura.

**Tr. of Borchardt and Lenormont syn.** Of gastric volvulus. Severe epigastric pain, vigorous attempts to vomit without results, and inability to pass a tube into the stomach.

**Tr. of Bourneville's syn.** Mental deficiency, epilepsy and adenoma sebaceum.

**Tr. of Bristowe's syn. (Corpus callosum tumor syn.).** Mental aberrations, gradually increasing hemiplegia, and ideomotor apraxia involving the left hand.

**Tr. of Brown-Sequard syn.** Ipsilateral lower motor neurone lesion at the level of the disease, posterior column and upper motor neurone lesions below the level, and contralateral lateral-spinothalamic signs below the level of lesion (giving rise to dissociated anaesthesia of opposite lower limb and may be trunk).

**Tr. of Budd-Chiari syn.** Hepatomegaly, evidence of collateral circulation and ascites. (Due to thrombosis of hepatic vein or one of its branches).

**Tr. of Burnier's syn.** Dwarfing, optic atrophy and adrenogenital dystrophy due to anterior pituitary hypofunction.

**Tr. of carpal tunnel syn.** Hypesthesia restricted to median n. distribution in hand, Tinel's sign, and Phelan's sign.

**Tr. of cauda equina lesions.** Flaccid lower motor neurone paralysis of legs, bladder involvement and sacral anaesthesia.

**Tr. of cerebellar disease.** See triad of Luciani.

**Tr. of cervical spondylosis.** Symptoms due to compression of n. roots, due to involvement of spinal cord, and painful stiff neck.

**Tr. of Charlin's syn.** Inflammation of anterior segment of eye, neuralgic pain at inner angle of eye, and rhinorrhoea.

**Tr. of Chavani-Brunhes syn.** Persistent headache, psychoneurotic disorders and calcification of falx cerebri.

**Tr. of Condorelli's disease.** Acro-osteodystrophy, amenorrhoea and parathyroid disorders.

**Tr. of chronic pancreatitis.** Fatty diarrhoea, wasting and diabetes.

**Tr. of Claude Bernard's syn. (Converse of Horner's syn.).** Ipsilateral pupillary dilatation, widening of palpebral fissure and relative exophthalmos. (Due to irritative lesion involving any portion of central or peripheral pathway of sympathetic chain).

**Tr. of congenital rubella.** Cataract, malformation of the heart, deafness.

**Tr. of Conn's syn.** Hypertension, hypokalemia (periodic attacks of great weakness—the flops), and impaired renal function (largely from decreased K).

**Tr. of cystic fibrosis (mucoviscidosis).** Pancreatic insufficiency, chronic broncho-pulmonary infection, high sweat sodium.

**Tr. of diabetic triopathy.** Nephropathy, retinopathy, neuropathy.

**Tr. of disseminated intravascular coagulation.** 1. *Clinical.* Septic shock, palpable purpura, acral cyanosis. 2. *Laboratory.* Prolonged prothrombin time, thrombocytopenia, hypo-fibrinogenemia.

**Tr. of dissecting aneurysm.** Sudden severe pain with syncope or shock, absence or diminution of peripheral pulses, and development of pericardial friction or AI.

**Tr. of Doan Wiseman syn.** Neutropenia, splenomegaly, and functional overactivity of bone marrow.

**Tr. of Duane's retraction syn.** Primary global retraction of orbital origin, congenital deficiency of horizontal recti ms., and narrowing of palpebral fissure.

**Tr. of diaphragmatic hernia in infants.** Cyanotic newborn with respiratory distress, dextrocardia, flat or scaphoid abdomen.

**Tr. of Ebstein's malformation.** Cyanosis, cardiomegaly and decreased pulmonary vascularity in the newborn.

**Tr. of Ehlers-Danlos syn.** Hypermobility joints, fragile and elastic skin, tendency to bleed.

**Tr. of exocrine-metastasizing pancreatic adenoma syn.** Polyarthritides, panniculitis and eosinophilia.

**Tr. (clinical features) of external ocular m. lesion.** Strabismus, defective ocular movement, and diplopia.

**Tr. of Fanconi-Petrasi syn.** Hereditary form of hemolytic anemia, macrocytosis, and hyperchromia.

**Tr. of Fanconi-Hegglin syn.** Brochopulmonary symptoms, roentgen sign of pulmonary infiltration with perihilar infiltration, and positive serological reaction for syphilis in a non-syphilitic person.

**Tr. of Felty's syn.** Enlargement of spleen, lymphadenopathy, rheumatoid arthritis.

**Tr. of Fishberg's syn.** In a case of mitral stenosis, sudden syncope, absence of peripheral pulsation, and bilateral ischemia of legs, ankles, nose and ears suggests ball-valve obstruction (incomplete) of mitral valve.

**Tr. of Fisher's syn.** Total external ophthalmoplegia, ataxia, areflexia.

**Tr. of Foix's syn.** (cavernous sinus syn.). Paralysis or paresis of 3rd, 4th and 6th cranial ns. and ophthalmic branch of 5th, proptosis, and oedema of lids and conjunctiva.

**Tr. of Foville's syn.** Facial paralysis, paralysis of external rectus m. of eye, and crossed hemiplegia due to pontine lesion.

**Tr. of Frohlich's syn.** Obesity, infantilism and hypersomnia.

**Tr. of Froin's syn.** Xanthochromia, excessive amounts of globulin, and spontaneous massive coagulation in C.S.F. due to blockage of spinal canal e.g. from intramedullary spinal tumor.

**Tr. of Garcin's syn.** Unilateral global involvement of cranial ns., absence of involvement of brain or long or motor or sensory tracts, and absence of papilloedema or evidence of increased intracranial pressure.

**Tr. of Gardner's syn.** Polyposis of colon, multiple sebaceous cysts, and osteomas.

**Tr. of Godtfredsen's syn.** Oculomotor paralysis, trigeminal neuralgia, and hypoglossal paralysis due to infiltration by nasopharyngeal tumors.

**Tr. of Gradenigo's syn.** Ipsilateral 6th n. palsy, pain in temporo-mandibular region on same side, and intercurrent inflammatory disease of inner ear, mastoid sinus, or both.

**Tr. (of symptoms) in G.P.I.** Progressive dementia, tremor, and generalised weakness.

**Tr. of Gram's syn.** Adiposis dolorosa, arthritis deformans of knee joints, and arterial hypertension in climacteric multipara.

**Tr. of Groenblad-Strandberg syn.** Pseudoxanthoma elasticum, angioid streaks of retina and cardiovascular disorders.

**Tr. of Hallevorden-Spatz d.** Progressive dystonia, hyperkinetic movements, retinitis pigmentosa.

**Tr. of Hand-Schuller-Christian syn.** Exophthalmos, diabetes insipidus, and lytic skull lesions.

**Tr. of Hanhart's syn.** Hyperkeratosis palmaris et plantaris, dendritic keratitis and mental retardation.

**Tr. of Hanot-Chauffard syn.** Diabetes mellitus, hypertrophic cirrhosis of liver and dark brownish pigmentation of skin.

**Tr. (of symptoms) of heart block** (high degree or complete). Symptoms due to low cardiac output, due to increased stroke volume, and due to transient circulatory arrest.

**Tr. of hemochromatosis.** Cirrhosis, diabetes mellitus, pigmentation of skin.

**Tr. of hemolytic anemia.** Anemia, attacks of jaundice and splenomegaly.

**Tr. of Henoch-Schonlein syn.** Purpuric rash, gastro-intestinal symptoms, and painful swelling of joints.

**Tr. of van der Hoene's syn.** Fragilitas ossium, blue sclera and osteosclerosis.

**Tr. of Hutchinson-Gilford syn.** Infantilism, facial and pubic alopecia, premature aging.

**Tr. of hyperparathyroidism.** Symptoms related to skeletal, gastro-intestinal and renal systems. (Bones, groans and stones).

**Tr. of hypoglossal alternating hemianaesthetic hemiplegia syn.** Contralateral hemiplegia of arms and legs, ipsilateral paralysis of tongue with atrophy and fibrillary twitchings of the involved portion, contralateral loss of position and vibration without loss of pain (due to softening of pyramidal tracts and mesial fillet at level of hypoglossal n. as it emerges from the medulla).

**Tr. of hemolytic syn.** Anemia, icterus and splenomegaly.

**Tr. of hepatic pre-coma.** Confusion, foetor, flapping tremors.

**Tr. of Herz.** Pain in cardiac region, respiratory symptoms, and palpitation in neurocirculatory asthenia.

**Tr. of hypertrophic pulmonary osteoarthropathy.** Clubbing of fingers and toes, periostitis of distal ends of long bones and arthritis (most commonly associated with bronchial carcinoma).

**Tr. of infectious mononucleosis.** Fever, sore throat, posterior cervical lymphadenopathy.

**Tr. (of signs) in internal capsule lesions.** Hemiplegia, hemianaesthesia and hemianopia.

**Tr. (of signs) of intracranial abscess.** Signs of infection, signs of increased intracranial pressure, focal signs depending on location of the abscess.

**Tr. of irritable colon syn.** Abdominal distress, variation in defaecating habits from diarrhoea to constipation, and passage of small stools.

**Tr. of Ivemark's syn.** Situs inversus, agenesis of spleen and congenital heart defects.

**Tr. of Jacod's syn.** Total ophthalmoplegia, unilateral amaurosis, and trigeminal neuralgia due to middle fossa cranial tumor.

**Tr. of Jackson's syn.** Ipsilateral paralysis of half of soft palate or larynx (X n.), paralysis of sternomastoid and trapezius ms. (XI n.), and hemiatrophy of tongue. (XII n.).

**Tr. of Jervell and Lange-Nielsen syn.** Congenital sensory deafness, syncopal attacks and prolongation of Q-T interval.

**Tr. of Jolliffe's syn.** Clouding of consciousness, cogwheel rigidity of extremities, and uncontrollable grasping and sucking reflexes due to total nicotinic acid deficiency.

**Tr. of Kaplan-Klatskin syn.** Psoriasis, sarcoidosis and gout.

**Tr. of Korsakoff's psychosis.** Confusion, disorientation in time and place and amnesia for recent events.

**Tr. of labyrinthine vertigo (Meniere's syndrome).** Vertigo, tinnitus and deafness.

**Tr. of Lange's syn.** Congenital muscular hypertrophy, extrapyramidal disorders, and mental deficiency.

**Tr. of Leschke's syn.** Asthenia, brown macules of the skin and hyperglycemia (early hemochromatosis).

**Tr. of Leimoyez' syn.** Tinnitus, deafness and vertigo.

**Tr. (radiological) of Leri's disease.** Decalcification, vertebrae en diablo, and parrot beak.

**Tr. of Lightwood's syn.** Hyperchloremia, metabolic acidosis and nephrocalcinosis.

**Tr. of Loeffler's syn.** Transient pulmonary infiltration, marked eosinophilia, and mild constitutional symptoms.

**Tr. of Lorain-Levi syn.** Dwarfism, hypogonadism, and infantilism (due to involvement of anterior lobe of pituitary gland).

**Tr. of Louis-Bar syn.** Neurological manifestations, (progressive cerebellar signs, choreo-athetoid movements and pseudo-palsy of eyes); telangiectasia, and sinus and pulmonary infection.

**Tr. of malignant hyperetension.** Papilloedema, proteinuria, markedly elevated diastolic pressure (usually over 130 mm Hg.).

**Tr. of Marchesani's syn.** (Inverted Marfan syn.). Short stature, brachydactyly, and ocular defects (spherophakia with myopia and glaucoma).

**Tr. of Marfan's syn.** Arachnodactyly, dislocation of lens, and congenital heart disease.

**Tr. of Melkersen's syn.** Chronic oedema of face, peripheral recurrent facial palsy and furrowed tongue.

**Tr. of Meiner's syn.** Paroxysmal attacks of vertigo, tinnitus and gradually developing deafness.

**Tr. of meningitis (or meningo-encephalitis)** 1. *Clinical.* Fever, nuchal rigidity and altered CNS function. 2. *Of symptoms.* Headache, fever, vomiting.

**Tr. of mediastinal syn.** Dyspnoea, inspiratory stridor and paroxysmal cough.

**Tr. of middle cerebral artery syndrome.** Hemiplegia (affecting mainly face and arm on opposite side), aphasia and loss of voluntary movement of tongue (if dominant hemisphere involvement), sensory loss (of cortical type) on opposite side.

**Tr. of Monakow's syn.** Contralateral hemiplegia, hemianesthesia and hemianopia due to occlusion of anterior choroidal artery.

**Tr. of Morgagni-Marrel-Stewart syn.** Internal hyperostosis, frontal hirsutism, obesity.

**Tr. of Moncrieff-Wilkinson syn.** Sucroseria, mental retardation and hiatal hernia.

**Tr. of Moschowitz's syn.** Trombocytopenic purpura, severe hemolytic anemia, neurological signs.

**Tr. of Munzer-Rossenthal syn.** Hallucinations, anxiety, and catalepsy.

**Tr. of Murphy's syn.** Pain first, vomiting next and fever last of all in acute appendicitis.

**Tr. (of clinical features) of myeloma.** Due to skeletal destruction (bone pain, cord compression, neuropathy); due to disturbance of immunoglobulin production (infection, anemia, bleeding tendency); due to development of extraosseous plasma cell tumors (in skin and sub-cut. tissue, pleura and lung, retroperitoneal and retro-orbital space).

**Tr. of Nebecourt's syn.** Diabetes mellitus, pituitary dwarfism and genital infantilism.

**Tr. of nephrotic syn.** Oedema, proteinuria, and hypoproteinemia.

**Tr. of neurological involvement in B<sup>12</sup> deficiency.** Posterolateral sclerosis, peripheral neuritis, cerebral symptoms.

**Tr. of night eating syn.** Nocturnal hyperphagia, insomnia and morning anorexia.

**Tr. of Nothnagel's syn.** 1. Blanching of skin, general pallor, and widespread constriction of extremities after exposure to cold. 2. Oculomotor paralysis, cerebellar ataxia, and somnolence due to pineal tumor.

**Tr. of oculomotor n. paralysis.** External ophthalmoplegia affecting some or all external ocular ms. (except external rectus and superior oblique), a large circular pupil which does not react to light or accommodation, and ptosis.

**Tr. of Ostrum-Furst syn.** Association of platybasia, congenital synostosis of neck, and Sprengel's deformity.

**Tr. of Parkinsonism.** Muscular rigidity, tremors and akinesia.

**Tr. of pellagra.** Dementia, diarrhoea, dermatitis.

**Tr. (of symptoms) in pericardial effusion.** Pain, symptoms due to compression, constitutional symptoms.

**Tr. of Pende's syn.** Adiposity, genital dystrophy and retarded physical and mental development (associated with thymic hypofunction).

**Tr. of posterior lobe cerebellar syn.** Functional disturbance involving finger and skilled voluntary movements, error in recognition of postural fixation of extremities, and error in direction and degree of voluntary precision movements.

**Tr. (of symptoms) of bacterial pneumonia.** General symptoms of infection (fever, rigors, malaise); pulmonary symptoms (dyspnoea, cough, sputum); pleural symptoms (pain aggravated by cough, deep breathing or movement).

**Tr. of pseudoxanthoma elasticum.** Skin lesions, gastrointestinal bleeding, retinal changes.

**Tr. (of signs) in pulseless disease.** Absent pulse in vessel of upper extremity or neck, carotid sinus sensitivity, and ocular disorders such as cataract and retinal defects.

**Tr. of pulmonary atresia with intact interventricular septum.** Cyanosis, cardiomegaly and decreased pulmonary vascularity in newborn period.

**Tr. of Plummer-Vinson syn.** Iron deficiency anemia, dysphagia and glossitis in middle aged women.

**Tr. of prune belly syn.** Deficiency of the abdominal musculature, cryptorchidism, and urinary tract abnormalities in infants.

**Tr. of Ramsay Hunt syn.** Herpes of geniculate ganglion with lesion in external ear, severe pain in external auditory meatus and pinna and facial palsy.

**Tr. of Raeder's syn.** Ptosis, myosis and severe unilateral headache.

**Tr. of Refsum's syn.** Atypical retinitis pigmentosa, cerebellar ataxia, peripheral neuropathy.

**Tr. of respiratory distress syndrome.** (Hyaline membrane disease), Tachypnoea, expiratory grunt, cyanosis.

**Tr. of respiratory insufficiency.** Hypoxia, hypercapnoea, acidosis.

**Tr. of rheumatic fever.** Polyarthritis, pancarditis, chorea.

**Tr. of Robenstein-Taybi syn.** Brachydactyly, facial abnormalities and mental retardation with disturbance of speech.

**Tr. of Roussy-Levy syn.** Sensory ataxia (dystasia) with pes cavus and areflexia affecting mainly lower legs (and later proceeding to involve hands).

**Tr. of rupture of aneurysm of sinus of Valsalva.** Sudden onset of pulsating neck veins, collapsing pulse, and continuous murmur.

**Tr. of Rutherford's syn.** Corneal dystrophy, gingival hypertrophy and failure of tooth eruption.

**Tr. of Schultz's syn.** Marked decrease or absence of granulocytes in circulating blood and bone marrow, extensive oral lesions in oral cavity and throat, and constitutional symptoms.

**Tr. of Shaver's syn.** Interstitial pulmonary fibrosis, emphysema and pneumothorax.

**Tr. of Sipple's syn.** Medullary carcinoma of thyroid, pheochromocytoma, parathyroid disease.

**Tr. of Sjogren's syn.** Xerostomia, xerophthalmia and connective tissue disease (usually rheumatoid arthritis).

**Tr. of Stein-Leventhal syn.** Palpable cystic or polycystic ovaries, amenorrhoea or oligomenorrhoea, and sterility.

**Tr. of Stokvis-Talma syn.** Cyanosis, enteritis and clubbing of fingers due to sulfhemoglobin.

**Tr. of Stryker-Habeisen syn.** Patchy erythroderma, intense pruritus and macrocytic anemia.

**Tr. of subacute bacterial endocarditis.** Signs of infection, embolic phenomenon and signs of cardiac involvement.

**Tr. of subacute combined degeneration.** Severe paraesthesia, absent ankle jerks and extensor plantar response.

**Tr. of subarachnoid hemorrhage** (Ruptured intracranial aneurysm). Meningeal irritation, increased intracranial pressure, focal signs (paresis of cranial ns., hemi- or monoplegia, subhyaloid hemorrhage).

**Tr. of superior cerebellar artery syn.** Ipsilateral inco-ordination of voluntary skilled movements, ipsilateral choreiform involuntary movements and contralateral sensory disturbances.

**Tr. of tabes dorsalis.** 1. *Of symptoms.* Lightning pains, dysuria, ataxia. 2. *Of signs.* Argyll Robertson pupil, absent tendon reflexes, positive Romberg's sign.

**Tr. of tension pneumothorax.** 1. *Of symptoms.* Sudden severe unilateral chest pain, increasing respiratory distress and increasing shock. 2. *Of signs.* Peripheral circulatory failure or cyanosis, asymmetrical enlargement of chest, and hyperresonant percussion note.

**Tr. of thalamic syn.** Transient contralateral hemiplegia, persisting hemianaesthesia and spontaneous pain.

**Tr. of trigeminal neuralgia.** Pain confined to distribution of trigeminal n., paroxysmal pain, pain precipitated by touching the face.

**Tr. of Trosier-Hanot-Chauffard syn.** Diabetes mellitus, cirrhosis of liver and dark-brown pigmentation.

**Tr. of tuberous sclerosis.** Sebaceous adenomas on face, mental deficiency, and epilepsy.

**Tr. of Volavsek's syn.** Keratosis palmaris, syringomyelia and nail dystrophy.

**Tr. of WDHA syn.** Watery diarrhoea, hypokalemia, achlorhydria.

**Tr. of Weber-Christian syn.** Relapsing panniculitis, painful nodules in the subcutis, and fever.

**Tr. of Wegner's granulomatosis.** Pulmonary (due to necrotising lesions of respiratory tract), neurological (due to generalised necrotising vasculitis), renal (due to necrotising glomerulonephritis).

**Tr. of Werner's syn.** Atrophic dermatosis, juvenile cataracts, and subnormal endocrine function.

**Tr. of Wernicke's syn.** Ophthalmoplegia, ataxia and mental confusion.

**Tr. of Weyer's syn.** Iris abnormalities, corneal disorders and anomalous tooth development.

**Tr. of Whipple's disease.** Diarrhoea, episodes of arthralgia or arthritis, generalised lymphadenopathy.

**Tr. of Wilson's disease.** Cirrhosis of liver, neuropsychiatric symptoms (tremor, choreiform movements, dysarthria, ataxia, fluctuating rigidity of limbs and psychotic states); K-F rings.

**Tr. of Wiseman-Doan syn.** Myeloid hyperplasia of bone marrow, splenomegaly and peripheral granulopenia.

**Tr. of Wyburn-Mason's syn.** Arterio-venous aneurysms of the mid-brain, vascular anomalies of the retina, and cutaneous naevi.

**Tr. of yellow nail syn.** Lymphoedema, yellow dystrophy of nails and pleural effusion.

**Tr. of Zieve's syn.** Jaundice, hyperlipemia, and hemolytic anemia.

**Tr. of Zollinger-Ellison syn.** Marked gastric hyperacidity, multiple atypically located, often recurrent peptic ulcerations of gastrointestinal tract; a noninsulin producing islet cell tumor of pancreas.





## TETRAADS

**Fallot's tetrad.** VSD, PS, overriding or dextroposed aorta, and hypertrophy of right ventricle.

**Tet. of Abetalipoproteinemia.** Near-absence of betalipoprotein in serum, retinal (macular) degeneration, acanthocytosis and chronic progressive neurologic deficit.

**Tet. of abdominal muscle deficiency syn.** Partial or complete absence of abdominal musculature, hydroureter, hydronephrosis and megabladder; undescended testis in males; and malrotation of intestine.

**Tet. of acoustic neuroma.** Auditory n. involvement, cerebellar signs, other cranial n. involvement (5th, 6th, 7th), and evidence of increased intracranial pressure.

**Tet. of acute infectious polyneuritis.** Acute onset following usually upper respiratory tract infection; bilateral lower motor neurone paresis of facial ms., relatively slight affection of lower sensory neurones in comparison with severe motor involvement; and albumino-cytologic dissociation in CSF.

**Tet. of Addison-Gill disease.** Vitiligoides of the skin, chronic jaundice, splenomegaly and hepatomegaly.

**Tet. of ataxia-telangiectasia syn.** Progressive cerebellar ataxia, progressive telangiectasia of bulbar conjunctivae and malar areas of face, peculiar eye movements, and sinopulmonary infections including bronchiectasis.

**Tet. of Babinski-Nageotte syn.** (Medullary tegmental paralysis). Cerebellar hemiataxia, contralateral hemiparesis, loss of sensibility of body and extremities, and associated Horner's syndrome.

**Tet. of basilar-vertebral insufficiency.** Dizziness, dysarthria, dysphagia, diplopia.

**Tet. of Benjamin's syn.** Hypochromic anemia, hypoplastic bone deformities, growth retardation, and mental retardation.

**Tet. of Biemond's syn.** Hypophyseal infantilism, coloboma of iris, polydactyly, and mental retardation.

**Tet. of Blum's syn.** Hypochloremia, hyponatremia, azotemia, and high urinary urea concentration.

**Tet. (clinical features) of bronchial carcinoma.** Nonspecific (loss of weight, weakness, anorexia, fever, clubbing); respiratory (cough, hemoptysis, dyspnoea); due to local spread (hoarseness of voice, bovine cough, Horner's syndrome); and due to distant metastasis.

**Tet. of Brun's syn.** Vertigo, vomiting, headache and visual disturbance during change of posture of the head (caused by midline tumor involving 3rd and 4th ventricles).

**Tet. of catscratch syn.** Development of red papule at site of cat scratch, regional lymphadenopathy, irregular fever, and systemic manifestations.

**Tet. of cauda equina lesions.** Saddle shaped anaesthesia, flaccid paralysis of ms. of legs below the knee, absent ankle jerks with present or exaggerated knee jerks, and bladder symptoms (retention of urine with overflow).

**Tet. (clinical) of chronic leukemia.** Symptoms and signs due to anemia, due to hemorrhagic state, due to enlarged spleen, lymph nodes or leukemic infiltrations; and due to systemic symptoms.

**Tet. of CRST syn.** Calcinosis, Raynaud's phenomenon, sclerodactyly, and telangiectasia.

**Tet. of Crueilhier-Baumgarten syn.** Unusually prominent periumbilical and thoracoabdominal veins, atrophic liver, chronic congestive splenomegaly and venous hum at site of periumbilical circulation.

**Tet. of Dejeans syn. (Orbital floor syn.).** Exophthalmos, diplopia, severe pain in region of superior maxilla, and numbness in the area supplied by first and second branches of 5th cranial n.

**Tet. of diabetic pseudo-tabes.** Ataxia, loss of position sense, perforating ulcers of feet, and pupillary abnormalities.

**Tet. of dystrophia myotonica.** Muscular atrophy (especially affecting sternomastoids, ms. of shoulder girdle, forearms, hands and legs); myotonia (most frequently involving thenar ms. and flexors of fingers), certain other dystrophic changes such as frontal baldness, cataracts, atrophy of testes or ovaries, and low intelligence.

**Tet. of Ellis-van Creveld syn.** Polydactyly, chondrodysplasia with acromelic dwarfism, ectodermal dysplasia, and congenital heart disease

**Tet. of Epstein's syn. (idiopathic nephrotic syn.).** Oedema, albuminuria, hypoalbuminemia, and hyperlipemia.

**Tet. of Evan's syn.** Autoimmune hemolytic anemia, leucopenia, scotoma, anosmia, and contralateral papilloedema (due mostly to thrombocytopenia, and purpura).

**Tet. of Felty's syn.** Rheumatoid arthritis, hepatomegaly, splenomegaly and leucopenia.

**Tet. of Foster-Kennedy syn.** Homolateral optic atrophy, central tumor at base of frontal lobe).

**Tet. of Gelineau's syn.** Narcolepsy, catalepsy, sleep paralysis, and hypnotic hallucinations.

**Tet. of Gerstmann's syn. (Dominant parietal lobe lesion).** Agraphia, acalculia, right-left disorientation, and finger agnosia.

**Tet. of Gilles de la Tourette's syn. (Brissaud's disease).** Chorea, coprolalia, echolalia and tic.

**Tet. of Goddenhar's syn.** Epibulbar dermoid cysts, auricular appendices, pretragal blind fistulae, and vertebral anomalies.

**Tet. of Gregg's syn.** (Postrubella syn.). Cataract, microphthalmia, heart defects and deafness (caused by maternal rubella).

**Tet. of Guilford's syn.** Anodontia, inability to smell or taste, hypotrichosis and anhidrosis.

**Tet. of Helmholtz-Harrington syn.** Congenital corneal opacities, bony abnormalities, mental retardation, and hepatosplenomegaly.

**Tet. of hemolytic jaundice.** Raised serum bilirubin, normal liver function tests, absence of bilirubin in urine, and raised reticulocyte count.

**Tet. of Henoch-Schonlein syn.** Purpuric rash, joint involvement, abdominal manifestations, and renal manifestations.

**Tet. of Horner's syn.** Constriction of pupil, ptosis, apparent enophthalmos, and lack of sweating over that side of face.

**Tet. of Huntington's chorea.** Association of chorea and dementia, insidious onset usually in fourth or fifth decade, progressive course, occurrence of features of the disorder in other members of the family.

**Tet. of hypersplenism.** Thrombocytopenia, neutropenia, and anemia, in association with splenomegaly.

**Tet. of hypertrophic osteoarthropathy.** Clubbing of fingers, new osseous formation of periosteum of long bones, swelling and pain in joints, and autonomic disturbances of hands and feet (such as sweating, flushing and blanching).

**Tet. of hypothalamic pituitary syn.** Obesity especially of trunk, hypogonadism, diabetes insipidus, and sleep disturbances (hypersomnia or inversion of sleep rhythm).

**Tet. (symptoms) of intestinal obstruction.** Colicky pain, abdominal distension, absolute constipation (for flatus and faeces), and vomiting.

**Tet. of Jakob-Creutzfeld syn.** Presenile dementia, parkinsonism, progressive muscular atrophy associated with pyramidal signs.

**Tet. of Killip-Feil syn.** Fusion of some or of all cervical vertebrae, shortness of neck, limitation of head movements, and low hair line posteriorly.

**Tet. of Konig's syn.** Abdominal distension, hyperperistalsis, alternating constipation and diarrhoea, and crises of colic that may simulate transient obstruction.

**Tet. of Lesch Nyhen syn.** Gout, mental deficiency, choreo-athetosis and spasticity.

**Tet. of Luis-Bars syn.** Cerebellar ataxia, oculo-cutaneous telangiectasia, frequent respiratory infections, and progressive mental deterioration.

**Tet. of Mauriac's syn.** Hepatomegaly, dwarfism, obesity, and juvenile diabetes.

**Tet. of metabolic bone lesions.** Osteoporosis, osteosclerosis, osteomalacia, osteitis fibrosa.

**Tet. of midbrain lesions.** Disturbance of consciousness, disturbance of conjugate movement especially upward, 3rd and 4th cranial n. palsies, motor and sensory changes below level of lesion.

**Tet. of narcolepsy tetrad syn.** Narcolepsy, cataplexy, hypnagogic hallucinations, and sleep paralysis.

**Tet. of Nielsen's syn.** Profound weakness, physical exhaustion, muscular atrophy and fascicular twitchings after extreme overwork.

**Tet. of Pancoast's syn.** Pulmonary apical tumor, paresthesia, pain or paresis of arm on affected side; atrophy of hand and arm ms., and Horner's syn.

**Tet. of paralytic ileus.** Abdominal distension, absolute constipation, vomiting, and silent tender abdomen.

**Tet. of paralytic poliomyelitis.** Lower motor neurone paralysis with loss of reflexes preceding detectable paralysis, paralysis patchy and asymmetrical in distribution, absence of sensory loss, and absence of involvement of long tracts.

**Tet. of pontine hemorrhage.** Coma, pin point pupils, bilateral Babinski's signs and hyperpyrexia.

**Tet. of posterior column lesion.** Diminution of joint, vibration, muscle and tendon sense; diminution of deep reflexes, ataxia with eyes closed with associated Rombergism, and hypotonicity.

**Tet. of pseudobulbar syn.** Difficulty of speech, swallowing, mastication, and emotional instability (due to bilateral lesions of corticobulbar fibres).

**Tet. of pterygo-palatine fossa syn.** Neuralgic pain in upper jaw, infraorbital anaesthesia, homolateral deafness or blindness, and paralysis of pterygoid ms. (due to extracranial lesion originating in pterygoid fossa).

**Tet. of Ramond-Cestan syn.** Contralateral hemiplegia, anaesthesia of face, extremities and trunk; paralysis of lateral conjugate gaze, and occasionally ipsilateral abducens paralysis (due to interruption of pyramidal tracts as they traverse the pons).

**Tet. of rickets with ocular-mental-renal syn.** Congenital glaucoma, bone disease, mental retardation, and abnormalities of renal function.

**Tet. of Robenstein-Taybi syn.** Brachydactyly, facial abnormalities, mental retardation, and disturbance of speech.

**Tet. of Rud's syn.** Mental deficiency, epilepsy, infantilism, and congenital ichthyosis.

**Tet. of Sezary's syn.** Generalised erythrodermia, intense pruritus, pigmentation and superficial lymphadenopathy.

**Tet. (clinical) of shock.** Hypotension, cold clammy skin, pallor, mental dulling or restlessness.

**Tet. of Sturge-Weber syn.** Venous angiomas of the leptomeninges, ipsilateral telangiectasia of the trigeminal region, contralateral hemiplegia, and choroidal angioma with late glaucoma.

**Tet. of Terson's disease.** Multiple cerebral aneurysms, subarachnoid hemorrhage, ocular venous stenosis, and venous saccular dilatation of the eye.

**Tet. of Troell-Junet syn.** Acromegaly, toxic goitre, diabetes mellitus, and hyperostosis of the cranium.

**Tet. of thoracic inlet syn.** Arterial symptoms (coldness, pallor or cyanosis); venous obstruction (axillary thrombosis), nerve pressure symptoms (numbness, tingling); and muscle wasting, or spasm or areas of tenderness.

**Tet. of Turner's syn.** Ovarian or gonadal agenesis (with associated retarded growth and sexual development), webbing of the neck, low posterior hairline, and cubitus valgus.

**Tet. of Taussig-Bing syn.** Transposed aorta (the aorta arises from right ventricle slightly posterior to pulmonary artery), large pulmonary artery, high VSD, and right ventricular hypertrophy.

**Tet. of Uyemura's syn.** Night blindness, epithelial xerosis, multiple white round spots on retina, and faulty dark adaptation due to vitamin A deficiency.

**Tet. of vertebro-basilar insufficiency.** Dizziness, dysarthria, dysphagia, and diplopia.

**Tet. of Wegner's syn. (granulomatosis).** Severe sinusitis, pulmonary inflammation, symptoms of arteritis, and terminal renal insufficiency.

**Tet. of Wernicke's syn.** Ophthalmoplegia, ataxia, mental confusion, and peripheral neuritis in chronic alcoholics.



## PENTADS

**Fallot's pent.** Tetrad of Fallot associated with secundum atrial septal defect.

**Pent of anterior cingulate gyri syn.** Apathy, akinesia, mutism, indifference to pain, and bilateral Babinski's signs.

**Pent. of anterior spinal artery syn.** Pain, paraplegia or tetraplegia, anaesthesia, trophic changes, and disturbed bladder and bowel function.

**Pent. of carcinoid syn.** Cutaneous phenomena including flushing, intestinal hypermotility (diarrhoea), oedema, carcinoid heart disease, and asthma.

**Pent. (clinical features) of cervical spondylosis.** Radicular symptoms due to compression of one or more n. roots, symptoms of cord compression due to cervical myelopathy, pain in the neck with spasm of neck ms., headache usually occipital, and vertebro-basilar ischemia often on rotation of the neck.

**Pent. of Cori's disease.** Retarded growth, tendency to adiposity, moderate cardiomegaly, yellow hue to skin associated with xanthomas on elbows, knees, lower legs and buttocks, and wide-based swinging gait.

**Pent. of De Sanctis-Cacchione syn.** Xeroderma pigmentosum, oligophrenia, retarded growth, progressive paralysis of upper and lower limbs, and marked photosensitivity of skin.

**Pent. of Di Guglielmo syn.** Anemia normocytic and normochromic with indices suggesting macrocytosis, extraordinary erythroblastic hyperplasia of bone marrow similar to response in hemolytic disease (except for only slight elevation of reticulocytes); presence of bizarre types of nucleated, polypoid and megaloblastic red cells in marrow (despite normal  $B_{12}$  concentration in serum); increased faecal urobilinogen; presence of erythroblastic as well as myeloblastic proliferation.

**Pent. of Friedreich's ataxia.** Spastic paraplegia, cerebellar ataxia in all limbs, impairment of sensation mediated through posterior columns, skeletal deformities (kyphoscoliosis and pes cavus), and myocardial degeneration.

**Pent. of Gordon-Overstreet syn.** Tetrad of Turner's syndrome with virilization (due to secreting epitheloid cells of ovary).

**Pent. of ischemia in Volkman's ischemic contracture.** Pain, puffiness, pallor, pulselessness and paralysis.

**Pent. of Hurler's syn.** Mental retardation, skeletal deformities, hepatosplenomegaly, cardiac involvement, and corneal opacities.

**Pent. of Sanfillipino syn.** Severe mental retardation hepatosplenomegaly, coarse facial features, stiffened joints, and urinary excretion of increased amount of heparin sulphate.

**Pent. of Laurence-Moon-Biedel syn.** Obesity, retinal degeneration, genital hypoplasia, polydactylism, and mental retardation.

**Pent. of Pringle's syn.** Tetrad of Bourneville's syndrome plus sub-ungual and periungual warty fibromas.

**Pent. of Schroeder's syn.** Arterial hypertension, rapidly developing central obesity, gynecologic disturbances, low sodium concentration in sweat, evidence of adrenocortical hyperfunction.

**Pent. of scimitar syn.** Anomalous pulmonary venous connections with drainage of right lung into IVC, hypoplasia of right lung with bronchial anomaly, right sided heart, hypoplasia of right pulmonary artery, and anomalous systemic blood supply to right lung from subdiaphragmatic part of aorta or its branches.

**Pent. of subarachnoid hemorrhage (Ruptured intracranial aneurysm).** Meningeal irritation (headache, neck stiffness, positive Kernig's s.); increased intracranial pressure (headache, nausea and vomiting, papilloedema, stupor and coma); focal signs (paresis of cranial ns. particularly 3rd and 6th, subhyaloid hemorrhage; monoplegia or hemiplegia); CSF blood stained, later xanthochromia; and urinary changes of transient proteinuria and glycosuria.

**Pent. of thalamic syn. (Dejerine Roussy syn.).** Contralateral spontaneous pain, sensory disturbances, transient hemiplegia, hemi-ataxia, and choreoathetotic movements.

**Pent. of Vogt-Koyanagi syn.** Vitiligo, poliosis, alopecia, dysacusia (tinnitus) and uveitis.

